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# INTRODUCTORY READINGS IN MARKETING

COMMODITY CHARACTERISTICS  
AND  
MARKETING FUNCTIONS

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## PREFACE

PRESENTED here is material which has been found useful in the teaching of beginning classes in marketing in the School of Commerce and Administration of the University of Chicago. To present to such classes the *facts* of marketing so that the principles of marketing developed would not be mere empty theories, it was necessary that text materials which would give a true picture of the many significant variations in the various markets be made available. A three-year search through two libraries and among business houses by myself and student assistants served to turn over a tremendous quantity of materials from which, by a rigorous policy of condensation and discard, these concise and concentrated materials were finally culled.

No attempt has been made to give the complete story of each product. Such an ambition would have required a library instead of a volume. Similar materials which would tend toward monotonous repetition have been thrown out, and only those different and characteristic things have been kept which show the range and variation in markets.

Nor has there been any desire to stress the most recent writings except to make sure that the readings should portray faithfully the general nature of the market as it stands today. Current books and periodical materials have been scrutinized carefully for significant recent trends, and when such were discovered, they have been included.

Through use of these materials as type case studies of market variations, it has been found that a careful survey of the field so covered has resulted in the natural and spontaneous raising of all important questions of marketing theory. Students have been asked to consider each product as a case for comparative study and have been required to "brief" it in advance of class discussion. Such a "brief" consists of, first, a brief analysis of the characteristics of the product, and second, a functional analysis of that trade, including *reasons why* such functions are so performed for that product.

The book is presented as a source of factual material which may fit in well with almost any organization of a marketing course.

Mature and experienced teachers of marketing, who have developed their own approach to the subject, may find these materials useful as a text of factual readings for students, from which raw material they may develop, in class discussion, their theories of marketing. Others may wish to use as a supplement some text covering the theory of marketing.

The greater part of this publication is not original except in the general idea of presenting in one text for comparative study a great variety of products. The first four chapters, in which the method of comparative study is explained, contain a new approach. This approach is proposed as a theory which will harmonize the functional and commodity concepts of marketing and will introduce a *scientific* method of approach based on the analysis of methods in terms of their *causes*.

I am deeply indebted to the many authors and publishers who have so freely and generously consented to the use of materials, in some cases running into quite extensive selections. Special credit is due Miss Ella Lavine, a student assistant in the School of Commerce and Administration, for the intelligent and tireless enthusiasm with which she searched libraries and business houses for materials to be included in the readings. Miss Katherine Stouffer and Miss Margaret Knox, student assistants, gave much valuable help in completing the material and bringing it up to date for publication.

Professor N. W. Barnes, of the University of Chicago, has given me great support and encouragement in the preparation and presentation of the material and has contributed many ideas to be included in the materials on manufactured products. Professor J. L. Palmer helped to clarify the point of view on the classification of commodities and, as a result of his recent investigations, suggested many recent trends to be mentioned in many trades. Professor E. A. Duddy surveyed the material on agricultural products and suggested valuable additions. Mr. G. D. Crain, Jr., editor and publisher of *Class and Industrial Marketing*, contributed a greater part of the material presented on industrial equipment. Dean W. H. Spencer, of the School of Commerce and Administration, has given substantial support by granting liberal student assistance as well as thoughtful encouragement.

E. L. RHOADES

Chicago, August 29, 1927.



## CONTENTS

PREFACE .....	iii
---------------	-----

### I. THE USE OF COMMODITIES IN THE STUDY OF MARKETING

#### I

COMMODITIES AND THE FUNCTIONAL APPROACH .....	3
-----------------------------------------------	---

#### II

CHARACTERISTICS OF MARKET COMMODITIES .....	12
---------------------------------------------	----

#### III

A CLASSIFICATION OF MARKET COMMODITIES .....	33
----------------------------------------------	----

#### IV

HOW TO STUDY A MARKET COMMODITY .....	40
---------------------------------------	----

### II. AGRICULTURAL PRODUCTS

#### A. PURCHASED ON A LARGE SCALE AS RAW MATERIALS

#### V

WHEAT .....	51
-------------	----

#### VI

CORN .....	92
------------	----

#### VII

OATS, BARLEY, RYE, ETC. ....	97
------------------------------	----

#### VIII

HAY .....	104
-----------	-----

#### IX

COTTON .....	109
--------------	-----

#### X

WOOL .....	128
------------	-----



	XI	
HIDES AND SKINS .....		146
	XII	
RAW FURS .....		153
	XIII	
LEAF TOBACCO .....		155
	XIV	
LIVE STOCK .....		165
B. CONSUMED ON A SMALL SCALE		
	XV	
EGGS .....		191
	XVI	
POULTRY .....		203
	XVII	
DAIRY PRODUCTS .....		212
	XVIII	
FRUIT AND VEGETABLES .....		228
	XIX	
POTATOES .....		239
	XX	
APPLES .....		248
	XXI	
CITRUS FRUITS .....		267
	XXII	
PEACHES .....		275
	XXIII	
CHERRIES .....		277
	XXIV	
CRANBERRIES .....		280
	XXV	
ONIONS .....		282

# CONTENTS

vii

## XXVI

RAISINS .....	292
---------------	-----

## XXVII

BANANAS .....	298
---------------	-----

## III. PRODUCTS OF FOREST AND MINE

### XXVIII

COAL .....	311
------------	-----

### XXIX

IRON AND STEEL .....	319
----------------------	-----

### XXX

COPPER .....	332
--------------	-----

### XXXI

LUMBER .....	340
--------------	-----

### XXXII

CEMENT .....	364
--------------	-----

### XXXIII

PETROLEUM .....	377
-----------------	-----

### XXXIV

RAW RUBBER .....	390
------------------	-----

## IV. MANUFACTURED PRODUCTS

### A. PRODUCED IN SMALL-SCALE FACTORIES

#### XXXV

PAPER .....	399
-------------	-----

#### XXXVI

TEXTILES .....	405
----------------	-----

#### XXXVII

SILK .....	423
------------	-----

#### XXXVIII

INTRODUCTION TO THE DRY GOODS AND CLOTHING TRADE .....	432
--------------------------------------------------------	-----

	XXXIX	
MILLINERY .....		462
	XL	
RUGS AND CARPETS .....		465
	XLI	
FURNITURE .....		469
	XLII	
HARDWARE .....		479
	XLIII	
DRUGS .....		487
	XLIV	
GLASSWARE .....		499
	XLV	
CANDY .....		503
	XLVI	
FLOWERS .....		509
	XLVII	
THE GROCERY TRADE .....		515
	XLVIII	
CANNED GOODS .....		524
	XLIX	
BREAD .....		539
	L	
COFFEE .....		547
	LI	
TEA .....		563
B. PRODUCED IN MEDIUM AND LARGE-SCALE FACTORIES		
	LII	
FLOUR .....		571



# CONTENTS

ix

	LIII	
MEATS .....		578
	LIV	
SUGAR .....		594
	LVI	
MANUFACTURED TOBACCO PRODUCTS .....		611
	LVII	
ALUMINUM AND ALUMINUM PRODUCTS .....		627
	LVIII	
MEN'S CLOTHING .....		638
	LIX	
HOSIERY .....		643
	LX	
SHOES .....		651
	LXI	
AUTOMOBILES .....		665
	LXII	
AUTOMOBILE TIRES .....		680
	LXIII	
FARM MACHINERY .....		687
	LXIV	
INDUSTRIAL EQUIPMENT .....		699
INDEX .....		731



INTRODUCTORY READINGS  
IN MARKETING

SECTION I

THE USE OF COMMODITIES IN THE  
STUDY OF MARKETING





# I

## COMMODITIES AND THE FUNCTIONAL APPROACH

THE author is firmly committed to the functional approach. Without the functional approach we should be floundering in an unmanageable maze of details. Those pioneers in the marketing field who have classified market functions have given us a coherent language for marketing and must be credited with making the first scholarly approach to the subject.

But in using the functional approach in college classes the author has been convinced that this approach must be fully supplemented by accurate and critical information on how commodities are marketed. There is a realism about the consecutive and complete story of how one product is marketed that grips the mind more forcefully and is accurately retained longer than the sketchy, patchwork reference to a specific commodity, caught up for the instant to illustrate a marketing function and dropped before the mind has been fully oriented on the special nature of that product.

The commodity approach has been a dangerous method because it so easily deteriorated into a mere description of processes, involving memory much more than thought. It is the opinion of the author that the study of commodities may be rescued from this depravity and that the dynamic realism of this method may be made to work for thoughtful understanding.

## THE FIELD OF MARKETING MAPPED AND IN PART SURVEYED

The etc etc etc etc etc etc  
marketing etc etc etc etc  
field etc etc etc etc  
is etc etc etc etc etc  
exceedingly etc etc etc etc  
complex etc etc etc etc  
because etc etc etc etc  
it etc etc etc etc etc  
involves etc etc etc etc  
innumerable etc etc etc etc  
processes etc etc etc etc  
or etc etc etc etc etc  
functions,etc etc etc etc  
wrapping up etc etc etc etc  
naming a price etc etc etc  
writing an ad etc etc etc  
making a sales talk etc etc  
weighing, etc etc etc etc  
dressing a window etc etc  
inspecting a sample etc etc  
loading on a truck etc etc  
making change etc etc etc  
suig for patent etc etc etc  
recepticing for goods etc etc  
sweeping out a store etc etc  
selecting a sales manager  
  
and etc etc etc etc etc etc  
this etc etc etc etc etc etc  
complexty etc etc etc etc  
is etc etc etc etc etc etc  
made etc etc etc etc etc etc  
more etc etc etc etc etc etc  
bewildering etc etc etc etc  
many etc etc etc etc etc etc  
commodities etc etc etc etc  
are etc etc etc etc etc etc  
involved etc etc etc etc etc  
hairpins etc etc etc etc etc  
soap etc etc etc etc etc etc  
automobiles etc etc etc etc  
anions etc etc etc etc etc etc  
steel etc etc etc etc etc etc  
shingles etc etc etc etc etc etc  
augurs etc etc etc etc etc etc  
pinns etc etc etc etc etc etc  
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(The above text was generated by a program designed to produce random sequences of words and punctuation marks.)

Figure 1: The bewildering complexity of the marketing field.

Our pioneer marketing students have surveyed this field in one direction, the functional approach, and simplified our study by leaving the field as suggested by Figure 2.

[illegible]

**Figure 2: Emergence of functions from the complexity of the marketing field.**

This gives us the beginning of an intelligent approach to the field. We know more nearly where we are going and what it is all about. We proceed to surround each of these general functional concepts with the appropriate refinement and subclassifications, and we have brought some order out of the chaos *so far as functions are concerned*. But, beneficial as these functional concepts are, they are nothing but vacant theories until we people them with commodities. Marketing is the study of *processes* involved in the exchange of *commodities*. In such a study, processes are nothing except as related to commodities, just as commodities are of no importance except as related to processes. In terms of



our graphs, we are interested in neither horizontals nor verticals as such, but in *the intersections of horizontals with verticals*.

Our authors who use the functional approach take pains to give body to their functional concepts by relating them to illustrative commodities. There are two purposes for such illustrations:

1. To prove that the function is a reality and not gossamer theory alone;
2. To show the nature of and variations in that function.

Authors who by limited contact with market practice are largely confined to simple theory stress the first of these purposes, since all that they need to do is to look here and there and collect the half dozen illustrations that they find or that occur to them from their personal experience. But other authors, in their illustrations of functions, show a keen discrimination in selecting commodities which show much of the range and variation within the function.

No author has yet apparently attempted to survey the commodity field (our verticals in the figures) and introduce order in this direction by providing a complete and useful classification of market commodities for use in a systematic study of the relationship of processes to commodities. Different commodities pass through different processes and different variations of the same processes. Why? Can we develop any systematic approach to an answer? The student of any science is constantly attempting to find relationships between cause and effect in his field. Can we establish a more systematic approach to those varying characteristics of commodities which serve as causes producing the effects we observe in the variations between processes?

It is the present purpose to show that such a classification can be made and that it will be useful. It is not the hope of the author that the classification here suggested is the best and most useful classification which could be made. Parts of it may be open to serious criticism. It is hoped, however, that it may be sufficiently plain to challenge the interest of later and more capable men to perfect it for future usefulness. The functional classification was not made and refined by one man nor in a day. It has had its evolution.

We may receive some help from those older sciences which have longer occupied the attention of scholars.







be most helpful in a systematic study of the range and variety of those functions.

*Chemistry Also Has Method to Offer.* Chemistry is another field which, like biology and marketing, has the problem of explaining the varied processes involved in the behavior of a large number of materials (Figure 5).

[illegible]

Figure 5: The complexity of the field surveyed by chemistry.

The chemist has found many systems of classification useful for various purposes. It may give some comfort to marketing men to learn that chemists have at times divided their field into such units as agricultural chemistry (similar to marketing of farm products) and industrial chemistry (similar to the marketing of manufactured products). But in doing so the chemist has always realized that he is dividing the field according to *the interests of special groups of people* and not upon the principle of fundamental causes for differences in behavior. Marketing will no doubt need to use many classifications, as chemistry has done, for the many purposes it has to fulfill.

Probably the most fundamental classification system used by the chemist is based on the concept of elements. The *element* is made to be the classification connecting link between substances of quite diverse appearance and physical properties but similar in some significant phase of behavior. Substances to the chemist become *bundles of elements*—which means that they are *bundles of behavior characteristics*; and since the element or the specific combination of elements serves as a *cause* for difference in behavior we may say that to the chemist a substance becomes *a bundle of causal<sup>1</sup> characteristics*.

The chemistry field has been surveyed and plotted as in Figure 6.

WE	NOW	HAVE	A	FEW	WELL	CLASSIFIED	TYPES	OF	
A		ELEMENTS		GROUPS		INDICES		OF	COMPOUNDS
BEHAVIOR		SUCH	AS	REACTIONS	TO	HEAT	LIGHT		
HAVE		OF		USEFUL		AS	FICATION		TYPES
TEMPERATURE		WATER		VARIOUS	OTHER	SUBSTANCES	ETC		
WE		NUMBER		INTO		SERVING	CLASSI-		VARIOUS
ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	ETC	
AND		LIMITED		GROUPED		AND	FOR		THE

Figure 6: Classifications in the chemistry field.

We might follow the methods of botany and classify market commodities according to the processes and institutions involved. That must have its place in our plan. Perhaps we may push on into the methods of chemistry and discover if possible the

<sup>1</sup> Perhaps to say "causal" is to make the statement a bit too strong. The proper shade of meaning may be somewhere between "causal" and "susceptible."



*elements* of marketing. These elements may be found in the *characteristics* and relationships of market commodities. With the right point of view, we should be able to discover here causal characteristics of the commodities which may be related to market practices as chemical elements are related to chemical reactions.

We are now ready to consider an analysis of the marketing field (Figure 7), horizontally based on processes or functions, and vertically based on characteristics of commodities serving as "elements" of marketing.

WE	HAVE	OUR	FUNCTIONS	OR	PROCESSES
SCALE	OF	ABILITY	ETC	TO	PRODUCTS
SUCH	AS	TRANSPORTATION,		STORAGE	CONCENTRATION,
AS		PERIS	ETC	OF	MARKET
DISPERSION,	SCALE	ADVERTISING,	SELLING,	KEYS	MAKING
SUCH		OF	TION		OF
PRICE,	CARRYING	DEGREE	MARKET	RISKS	FINANCING
TIONS	TION	DUC	AS	OR	
THE	MARKET	ETC	ETC	ETC	ETC
TERIS	SUMF	TION	PRO	SERVE	CATION
ETC	ETC	ETC	ETC	ETC	ETC
CHARAC	CON	DUC	OF	WHICH	FI
AND	WE	MAY	DIS	A	GUISH
CERTAIN	OF	PRO	METHOD	ETC	CLASSI

Figure 7: Analysis of the marketing field.

The characteristics of market commodities which form the basis of vertical classification in Figure 7 are discussed in detail in the following chapter.

## II

### CHARACTERISTICS OF MARKET COMMODITIES

#### I. PHYSICAL CHARACTERISTICS OF THE COMMODITY

##### A. Relative Degree of Perishability:

1. Relatively non-perishable
2. Of unstable physical nature:
  - a) Fragile.
  - b) Subject to decomposition by time, temperature, moisture.
  - c) Subject to soil or discoloration.

##### B. Concentration of Value:

1. Bulky products (heavy—large)
2. Concentrated value

##### C. Size of the Physical Unit:

1. Convenient for human handling
2. Finely divided or liquid
3. Extra large units

#### II. CHARACTERISTICS OF THE PRODUCTION OF A COMMODITY

##### D. Scale of Production:

1. Large
2. Medium
3. Small

##### E. Place of Production:

1. Near consuming market
2. Distant from consuming market (note relationship to foreign trade)

##### F. Concentration of Production:

1. In concentrated district
2. Scattered

##### G. Method of Production:

1. Largely by nature (note localization and seasonal production)
2. Largely by hand labor
3. Largely by machinery (note decreasing costs)

## H. Length of Production Period:

1. Long
2. Short

## I. Major, Joint, or By-Product.

## III. CHARACTERISTICS OF THE USE OF A COMMODITY

## J. Scale of Consumption:

1. Purchased on a large scale
2. Purchased on a small scale

## K. Used by Many or by Few Consumers:

1. Purchased by many people
2. Purchased by few

## L. Frequency of Purchase:

1. Frequent
2. Infrequent

## M. Obvious or Inscrutable Nature of the Product:

1. Product popularly understood as to quality and use
2. Quality or use not easily determined by purchasers

## N. Need of Mechanical Service:

1. Skilled labor needed for installation
2. Special mechanical service
3. Specialized repair parts and supplies

## O. Independence of Demand:

1. Independent
2. Dependent on demand for other products

## P. Persistence of Demand:

1. From year to year
2. From season to season
3. Dependent on "style"
4. Dependent on "fad"

## Q. Elasticity of Demand:

1. Elastic
2. Inelastic

## R. Standardization of Desires Satisfied:

2. Variety—variations demanded in the product
1. Uniformity—same product acceptable to many

## S. Cost of the Purchase Unit:

1. Small outlay per item
2. Large outlay per item

## T. Concentration of the Consuming Area:

1. Used largely in one locality
2. Scattered users

## U. Buying Habits of Consumers:

1. Convenience goods
2. Shopping lines
3. Specialty goods

WE may divide characteristics of market commodities into three major classes (1) *physical characteristics*, (2) *characteristics of the production of the commodity*, (3) *characteristics of the use of the commodity*. Asked to mention some of the characteristics of a stated commodity, the lay mind would probably respond in terms of colors, sizes, weights, and other *physical* concepts. But in that mind there would probably be, thrusting itself into the consciousness, a long list of associated ideas involving *use* and the *human satisfactions involved*. We shall accept these associated ideas as characteristics quite as readily as we do their more tangible brothers.<sup>1</sup> The mind trained in marketing will almost instantly summon up yet another list of relationships which have to do with *source* of the commodity.

## PHYSICAL CHARACTERISTICS OF THE COMMODITY

It is easy to overvalue the physical nature of a commodity as a cause for marketing variations. Physical factors can seldom have the far-reaching effect on marketing methods which characteristics of production and characteristics of the use of the commodity may have. There are, however, some physical factors, particularly perishability, which have such a far-reaching effect. Most of the physical factors of a commodity readily called to mind have but little effect. The variation in marketing methods registered on the eye is relatively great, but such variations under careful, thoughtful analysis prove to be minor and superficial.

*Relative Degree of Perishability.* Perishable articles must move fast in commerce and must not dally in the hands of many middlemen. If they are highly perishable, they move shorter distances unless moved very fast and under careful protection.

<sup>1</sup> It is useless to attempt to understand marketing methods without an understanding of psychological reactions to products. An essential feature of a market commodity is the psychological or emotional reaction it evokes. Any description of a product which leaves out that essential factor is impossibly incomplete. Marketing is not simply the dull and heavy task of carrying objects from one place to another and delivering these physical objects into the hands of new owners. An understanding of marketing structures can never be raised on such a foundation.



These are far-reaching differences having their effect on many of the processes of marketing.

Commodities may be perishable because they are of unstable chemical nature. Such unstable chemical compounds tend constantly to revert to more stable forms. In many of these compounds, time alone may tend to break them down. In most of them, time must be aided by varying physical forces, temperatures, and contact with other substances. Science as applied to commerce is constantly evolving methods for the control of these physical surroundings so that decomposition processes in the product may not be induced.

Among the unstable chemical compounds represented among commodities are to be mentioned the organic products in which the processes of constructive metabolism merge into the processes of catabolism with a constant chemical change which can scarcely be prevented by the most perfect control of conditions known to men. Vital processes tend to continue, and chemical change tends to be rapid in organic products, particularly in organic products with a high moisture content. Water is an agent hastening chemical change.

Some commodities, such as live stock and young fruit trees, are recognized as living things which require varying amounts of air and water and cannot go too long without food.

Bacteria cause rapid decomposition in some commodities. Such bacterial action is commonly aided by moisture and high temperatures. Bacteria, moisture, heat, are a trinity to be closely associated in the mind of the marketing student with perishability.

Some commodities are perishable because they are fragile and may be crushed or broken with ordinary care. Such products require extraordinary care in handling. This characteristic of fragility is frequently found allied to chemical instability in many organic products. It is not so important as the chemical element since it does not call for speed in the marketing process. The value of an article may be perishable because the desire for it will cease or decrease while the physical condition of the product suffers no adverse change. That aspect of perishability will be reserved for analysis in another place, but may be noted here briefly for the sake of the light it throws on the need for speed.



Speed and special equipment are keynotes to the handling of perishables. Speed is needed in transportation. The slow switching delays which dead freight may easily stand are out of the question for the perishable cargo. But speed in the selling and communication system is as necessary for the handling of perishables as is speed in transportation. The commodity is perishable and must be sold soon. Therefore, agencies of rapid communication are invoked to arrive at sales. The telegraph is used relatively more for perishables than for nonperishables. A small shipment of perishables may involve several wires while a similar shipment of unperishable goods may be delayed for mail communication. In the perishable food trade of the United States there is daily a very large volume of telegraphic communication used to direct quickly and accurately the flow of perishable commodities to where they are needed and to keep them out of market gluts.

Rapidity of communication is facilitated and speed in marketing is served by sympathy and understanding between the communicating parties. This condition favors integration of business units under identical or closely correlated control. Sometimes it tends to produce large-scale handling of commodities for which large-scale handling is not otherwise indicated. Always it tends to limit the number of sales which may be made and therefore the number of middlemen who may own the commodity. The warehouse receipt carrying title to a thousand bushels of wheat may change hands many times before the wheat is milled, but a carload of fresh tomatoes would hardly have such an experience.

Lack of standardization in perishable commodities is another factor which is added to speed to complicate the communication involved. Communication is simplified in the case of less perishable commodities which may be better standardized. In place of a long detailed description to be sent by letter or by wire, a commercial short cut or shorthand may be introduced to boil it all down to "No. 2 Red Winter" or some similar short phrase which speaks volumes. Perishable commodities are less standardized than more stable products. They may be graded or branded as of certain quality only as at the time. That quality changes as times goes on, and the brand or certificate of grade becomes a mark of what has been rather than of what is. This characteristic of perishability then again is seen to make (1)

communication more difficult, (2) intimate contact between traders more necessary, (3) integration in business more frequent, and (4) the multiplication of middlemen less likely. Perishability and lack of standardization make sale by inspection more necessary and require the presence of sellers' agents where the commodities are delivered.

Special equipment may sometimes be required by the perishable nature of the commodity. It may be required because the commodity is (1) to be kept at a low temperature, or (2) to be protected from low temperatures, or (3) to be protected in handling, or (4) to be zealously guarded from air or from moisture or noxious odors. Packaging may suffice to satisfy some of these requirements so that the packaged commodity may be less perishable and need less equipment. But many commodities must be carried in their perishable condition and require special equipment, such as refrigerator cars, cold storage space, artificially heated storage, and extraordinary ventilation facilities. As a special case, bananas might be mentioned as a commodity which must be moved rapidly on special types of boats with special equipment for careful handling and requiring special ventilating equipment.

To the extent that perishability calls for special equipment, to that extent the handling of perishable commodities tends to be limited to those traders who control special equipment. This tends to restrict the number of competitors and frequently to make competition more sluggish.

There are characteristics of commodities, other than perishability, calling for specialized equipment from which the effects mentioned above may spring. They will be noted later.

Perishability tends to restrict production to areas near the consuming areas. Extreme perishability, such as we have in the case of fluid milk, effectively restricts the area. To the extent that it limits the market area, it influences business methods. Long distances typically mean long-distance impersonal communications. Shorter distances tend to permit more direct and more personal methods. However, various methods are used to overcome perishability so that the perishable commodity may be carried for great distances.

Restriction of the producing area by the perishability of the commodity also may lead to a disorganized price system, in

which the prices at various points may vary widely and sporadically from each other instead of keeping rather closely in line with each other, as in the wheat market. The price of fresh figs in California has no important relationship to the price of fresh figs elsewhere. The price of fluid milk in Kansas City has no relationship to the price of fluid milk in St. Louis, except through the relationship of each to the ubiquitous sour cream.

When the market is restricted in extent by perishability of the commodity, the resulting insulation of small price areas favors the establishment of monopoly price control in the various areas.

*Concentration of Value.* If a commodity is very heavy or very large in proportion to its value, it is difficult to transport and tends to be restricted to areas near the consuming market. Bulkiness limits market area by the way of high cost of power and equipment for transportation, just as perishability limits market area by the high cost of speed and special equipment. The many difficulties of long-distance communication and resulting changes in marketing have been mentioned before and are essentially no different because they are caused by concentration of value. Some commodities, such as mountain scenery or a farm, are so bulky that they may not be transported and the consumer must come to them, just as he ordinarily must come to mineral bath springs. Diamonds and rubies may flit about the world.

Bulkiness is important because it affects distance. Otherwise this characteristic is likely to be popularly overestimated. The effect on the eye of a bulky commodity is likely to be so different from that of a highly valuable commodity that eye-minded people are likely to assume much greater differences than actually exist in marketing methods.

Commodities of concentrated value tend to be packed and protected in a different manner than bulky commodities because their small size makes them more liable to loss and more acceptable to robbers. This feature is of some importance, but its importance may easily be overestimated. The necessity for careful guarding seldom, if ever, causes important fundamental changes in marketing channels or marketing methods.

*Size of the Physical Unit.* Some commodities come on the market naturally in units of size convenient for human handling as a physical unit in trade. A great number of manufactured com-



modities of an equipment nature, such as furniture, household and office equipment, and shop equipment, naturally are made in units convenient for one or a few persons to move about. Such items as these, when not perishable, are particularly easy to handle in transportation and storage. They require no specialized handling equipment and no specialized storage space. Such commodities are to that extent more subject to competition among middlemen, though not necessarily among manufacturers.

It should be noted in passing, also, that convenient numbers and weights tend to become the units of sale as well as units for separate physical (human) handling. Various commodities are sold by the "box," by the "case," by the "barrel." These units ordinarily constitute a compromise between the number convenient for the stevedore and the number convenient for the trader to sell.

Liquids and finely divided solids, such as cereals or powdered chemicals, are commonly packaged in sizes convenient for handling. In this type of commodity the commercial unit becomes a weight or measure unit, and the package tends to conform to standard weights or volumes.

Commodities, particularly those of less concentrated value and those of most common use, are handled in bulk by special bulk handling equipment. Grain in the United States is a notable example, as is petroleum. The expense of loading and unloading equipment for such commodities tends to restrict competition. Furthermore, the custom of shipping these materials loose in a car tends to restrict the trade to those capable of handling them in carload lots (granted that the difference between c.l. and l.c.l. shipping costs is largely responsible for this). For such commodities as appear in convenient units there is the tendency to use the single physical unit as a commercial unit upon which to trade. Washing machines are not sold by the pound, the hundredweight, the bushel, or the dozen, but by the number of machines. The chief reason for this may be traced to the size of the physical unit.

Extra large physical units, difficult to move by hand, usually require special equipment for handling and to that extent tend to restrict competition in the trade. A large proportion of these large commodities are of a mechanical nature and require spe-



cialized equipment for installation. This also tends to restrict the number of traders.

#### CHARACTERISTICS OF THE PRODUCTION OF A COMMODITY

The physical characteristics of commodities have been considered. There is next to be considered those facts about the production of a commodity which are most effective in determining the trade organization through which it moves and the methods employed in selling it.

*Scale of Production.* Large-scale producers of a commodity prepare the commodity for sale in wholesale quantities and immediately enter the wholesale market as traders. This does not necessarily mean that they are jobbers. They may sell to jobbers or to wholesalers. The important fact is that they are actually wholesale sellers.

The very small-scale or individual producer does not produce in wholesale quantities and seldom has direct contact with the wholesale market. For producers of this sort, with the exception of those producing solely for local trade, there is commonly evolved a system of concentration involving middlemen between the producer and the wholesale market. Sometimes there are several such middlemen.

The medium-scale producer might be mentioned as the indefinite group of producers who produce neither on a very large nor on a very small scale and who are more or less removed from the large wholesale market.

The large-scale producer who approaches the market with wholesale quantities generally has the option of distributing the commodities through a division of his own organization or of selling them to middlemen who make a business of dispersion. The large-scale producer is the only producer that can ordinarily give wide distribution direct to retailers or direct to consumers. Smaller producers may market direct within a restricted territory, but large scale of production may be accepted as favoring direct marketing.

The large-scale producer, with his better opportunity for more direct contact with the consumer, more commonly undertakes some degree of control of the consumer market. He is more likely to do consumer advertising of his products at long distances

from his point of production. The magazines with national distribution are supported by relatively large-scale producers. Smaller producers of commodities which are distributed over a wide area do not have contact with the consumer and do less advertising.

The large-scale producer, even when he does not distribute his own products or advertise them to the consumer, sells in a manner different from that of the small producer. Since he has large amounts of product for sale, he can attract larger buyers and may sell to buyers who can afford to inspect and buy the goods before they are shipped and without formal grading by public or semipublic inspectors. Grading becomes increasingly necessary as the size of the producing unit is decreased and the trade becomes less personal.

Some of the reasons for the scale of production of a commodity will appear in the next section. Methods of production will be shown, however, to have effects other than those operating only through their effect on the scale of production.

*Method of Production.* In considering the method of marketing a commodity it is well to ask whether it is produced largely by nature, largely by hand, or largely by machinery.

Nature produces without uniformity, and her products must be sorted into classes and grades. She produces where the climate and soil happen to favor the product or where her rocks have been heaved up in such a way or her winds and waters have performed in such a way as to make deposits accessible. She produces when she wishes to, quite regardless of demand, releases her products in seasonal surges, and takes her own leisurely time to produce them. Let us add to these difficulties the whimsical tendency of nature to make and keep no promises about how much of any product she will produce in any year.

Classes and grades as applied to market commodities are best known by far in natural products. Grading of other commodities is seldom so elaborate and usually goes only so far as to differentiate the perfect from the imperfect (frequently called "seconds").

Nature commonly scatters her products in such a way that they may be harvested by man on a small scale. Some deposits, such as copper and iron, are worked by large companies, but

most of the mineral and forest products are exploited on a medium or small scale. Annual crops from plants are commonly scattered and harvested on a small scale, because soil fertility, rainfall, and sunlight requirements of the plants prevent tremendous production on one spot.

Frequently the localization of production by nature results in the production of the commodity at a great distance from the consuming districts. When this is true, there is a tendency for the number of middlemen to be increased and for the size of the middleman unit to become greater. This tendency is notable in lumber, where the large size of distributing companies favored by the distance has reacted on production to assemble into large companies what apparently would have otherwise continued to be small production units.

The annual crop with seasonal fluctuating production gives rise to peculiar storage needs and creates peculiar problems in the forecasting of probable stocks and probable needs. Forecasting is different for such products than in cases where production may be carried out throughout the year and under control so that it may be adapted quickly to consuming needs.

Commodities produced largely by hand labor are ordinarily produced by medium or small units and therefore tend to follow the trade channels and trade practices mentioned above as characteristic of medium and small production units. Production involving a large percentage of hand labor seldom attains the largest scale. Great number of skilled workers (and skilled workers are the rule with commodities produced largely by hand labor) are difficult to supervise in a single unit. Furthermore, hand production lacks uniformity and is better adapted to medium-scale production of style goods and other variable goods than to large-scale production of a highly standardized commodity. This relationship of hand work and medium-scale production to the variable element in goods will be mentioned later in connection with style.

Commodities produced largely by machinery are typically highly standardized. For this reason, communication in regard to them is particularly facilitated. This increased facility of communication tends to widen the market outlet and permits production to be placed on a larger scale. The effect of this larger scale has been discussed. The producing efficiency of large mechanical



units is in part responsible for the larger size of the producing unit. Trusts have been formed more readily in machine industries because of the tendency to concentrate such production in large units.

Machine production, with the uniformity resulting from it, tends to relieve the necessity of inspection by the purchaser, permits buying by brand, and fosters distant advertising.

*Length of Production Period.* A commodity which may be produced in a short period is more easily controlled so that production may correspond to consumption needs. It therefore tends to require shorter storage, less financial support during storage, and fewer additional middlemen or additional service institutions to absorb or decrease the risk of inadequate or excess production.

In the case of long production periods, price swings are long and tend more to depart from costs.

*Major, Joint, and By-Products.* The various characteristics of commodities discussed apply to major products particularly. By-products *tend* to move through the channels provided for the corresponding major products. *They do not necessarily move through the same channels, because other characteristics may prevent the use of the same channels for them.*

By-products may not react to price changes with the certainty of major products. They usually do not. An increase in the price of horn will generally have comparatively little effect on the production of horn. It may react to make more careful use of the stock and slightly increase the supply on the market. There are, however, certain by-products with a value close to the cost of processing that are quite as sensitive to price changes as are major products.

*Production under Conditions of Increasing or Decreasing Costs.* Decreasing costs drive the manufacturer to an intense fight to control a large market so that he may produce a large volume. To control this large market, he adopts more direct marketing channels and tries to control the consumer by advertising and aggressive trade promotion. He tends at times to become a price cutter and to launch his products at a price below cost.

Decreasing costs and scattered competitive producers appear to produce an unstable economic compound. There tend to be



competitive wars of aggressive selling until, through consolidation or agreement, the elements are reconciled. And this reconciliation must be a constant process on account of the entrance of new competitors.

Agricultural products, mineral products, and other commodities generally produced under a system of increasing costs do not provoke such intense competitive effort to absorb overhead costs by increasing production.

#### CHARACTERISTICS OF THE USE OF A COMMODITY

Physical characteristics of the commodity have been noted and their effects analyzed. Characteristics of the production of the commodity were shown to affect marketing structures. There is left to be considered certain characteristics of the use of the commodity, or characteristics of the consumer's attitude toward the commodity, which affect marketing channels and methods. A proper approach to this section is more easily made if the reader will think of market commodities solely as satisfactions for desires and will forget about sources and physical natures.

*Scale of Consumption.* The relative quantities of goods purchased by one consumer is perhaps the most important and far-reaching cause of variations in trade structure and commercial methods. The large industrial concern purchasing large quantities of raw material, equipment, and supplies buys rather direct in the wholesale market, while the small individual consumer buys commonly through an elaborate dispersing structure which involves jobbers, retailers, grades, brands, advertising, popular salesmanship, and so on.

The large industrial concern does not buy as noted above so much because it is large or because it is an industrial concern, or because it is buying raw materials or equipment or supplies, but rather because it buys in large quantities. Very small purchases are commonly made for large companies in much the same way that they would be made by individual consumers. Scale of consumption, then, must not be confused with scale of operations of the consumer. Mere size of the consumer may make for impersonal and formal methods and thus have an effect on methods of marketing. It is also true that relatively large firms tend to purchase in relatively large quantities.

The same commodity may be purchased in large quantities by some consumers and in small quantities by other consumers. For example, flaxseed may be sold in large quantities to millers who press out the oil and in small quantities to anyone who may wish to make a poultice. In such cases the trade channels will vary. For that reason we are not here interested in the names of things, because names frequently throw into one group characteristics which are inconsistent from the point of view of this study.

The very existence of retail outlets is caused by sale to small consumers, and consequently all the problems of retail merchandising come as a result of small-scale purchasing. A few of these problems may be passed in review as reminders. The large-scale consumer generally has an extensive and somewhat scientific knowledge of the goods which he purchases. He employs experts to purchase and he has tests made of the goods before he purchases. On the other hand, the small consumer generally lacks this careful knowledge of the goods and must depend for his decision more on the word of the local retailer and on the brand and advertising of the producers. For that reason, convenient and attractive packages and attractive popular advertising become features of selling to small-quantity consumers. Service is of relatively more importance to the small-scale consumer than to the large-scale consumer.

The large-scale consumer commonly wants the goods for some kind of impersonal, productive use, while the small-scale consumer more commonly has a personal interest and personal bias to be considered. This leads to variations in marketing more properly discussed in another connection.

*Use by Many or by Few Consumers.* Among commodities purchased by small-scale consumers there are some purchased widely by many people and others purchased by but few. Many purchasers make a wide market for the service of traders who are interested in the commodity and tend to produce a greater degree of specialization in the handling of these commodities. The effect of this condition is difficult to evaluate and may easily be overestimated. The large number of buyers (everything else being equal) should concentrate the volume of business and make selling processes less costly and transportation less costly. This

should result in a tendency toward lower trading margins for those commodities purchased by many. Caution should be exercised to avoid confusing large numbers of purchasers with large volume of business. In this connection it is quite valid to state that larger numbers of purchasers (other things being equal) causes larger volume of business, but it is not valid to state that larger volume of business necessarily involves larger numbers of consumers.

If the numbers of consumers is relatively limited by considerations of race, employment, geography of domicile, or purchasing power, there are special problems arising; but these problems are largely caused by the special limiting conditions and not by the mere smaller number of purchasers.<sup>1</sup>

Commodities purchased by many consumers are somewhat more likely to be subjected to a high degree of social control. This may be in part because there are more voters interested in supporting social control; but probably it is due more largely to the prevalence of necessity articles among those goods purchased by many consumers.

*Frequency of Purchase.* If frequency of purchase is carefully disentangled from quantity purchased and from number of purchasers, there is left but small effect directly chargeable to this cause.

Goods purchased most frequently are most likely to be carried in convenience stores, and opportunities for more convenient purchases are customary features of the marketing of this class of goods.<sup>2</sup>

Frequency of purchasing begets purchase by habit with a minimum amount of thought expended on each separate purchase.<sup>3</sup> The chief effect of habitual purchasing on methods of merchandising is probably to make additional sales of the same article of the same brand easier to make in cases where there are short intervals between purchases than in cases where long times elapse between purchases. Reminder copy in advertising has a prominent function in such cases, and prominent display

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<sup>1</sup> Such details do not come within the present range of this study.

<sup>2</sup> It must be borne in mind also that number of purchasers is a factor making possible the carrying of items as convenience goods.

<sup>3</sup> This must not be confused with the smaller amount of conscious attention expended on items costing small amounts.



of the article in the sales place is relatively more important than personal sales effort.

*Obvious or Inscrutable Nature of the Commodity.* If the commodity is well understood by a large percentage of purchasers as to its composition, its quality, and its use, it may be classed as obvious. In such a case the purchaser is able to make up his own mind intelligently about the value of the article to him without assistance from others. And in such cases he tends to rely more upon his own judgment than upon the assistance of salesmen and advertisers.

There are several reasons why various commodities do not have this obvious nature and may be termed inscrutable.

Commodities may be packaged in impervious and opaque containers so that their nature is hidden from the purchaser. In such cases the purchaser must buy on faith, and the merchandising plan must make it feasible for him to so purchase on faith. His faith is commonly pinned on the reputation of a firm, as indicated by the firm's brand mark or certificate of grade or purity. Therefore, familiarity with a brand is made more necessary and advertising is practiced more. The reputation of the retail house and the sales persons in that retail house assumes a greater importance for such goods in the absence of advertising and consequent recognition of brands.

A commodity may be inscrutable to the purchaser because its composition is not understood. It may be inscrutable in chemical nature, as drugs, medicines, and beverages. It may be inscrutable in physical composition, as textiles or prepared foods. It may be inscrutable because of mechanical complexity. In all these cases the brand, the salesman, or the reputation of the selling firm are of relatively great importance.

A commodity may be inscrutable because the purchaser does not understand its use in the satisfaction of his wants. This may be in spite of the fact that the chemical and physical characteristics of the commodity are thoroughly apparent to him. When the purchaser does not understand the possible use of the product by himself, personal salesmanship becomes very important, for the great function of the salesman is to show to the consumer how commodities may be used by various individuals with varying needs to satisfy most perfectly these needs. Advertising is



also relatively much more important in these cases than in those in which the use of the commodity is known. Magazines are full of copy explaining the uses of commodities.

New commodities, not yet established on the market, are usually not fully understood by the potential purchaser either as to composition or use. Therefore, aggressive methods of advertising, salesmanship, and demonstration are more commonly used to explain such products to the purchaser.

*The Need of Mechanical Service.* In the case of some commodities, the marketing process is by no means complete when the sale to the consumer is made and the article delivered. Certain commodities, particularly items of larger machinery, are not disposed of until installed by an expert where they are to be used. If such installation requires technical skill, it is quite customary for the seller to furnish that skill and include it in the purchase price.

For such durable technical commodities, specialized technical skill is also frequently needed for the making of repairs. If the technical skill so required is highly specialized, it becomes increasingly necessary for the seller to stand ready to make repairs as well. Repair parts and supplies must also be assured by those who would sell such commodities.

The increased need for mechanical service tends to restrict the trade to those equipped to render the service. This tends to lead to specialization. This specialization extends not only to the retail trade but to the wholesale trade as well. The inability of the general distributor to give service on the specialized lines causes direct marketing by the manufacturer to be found more commonly in such lines.

*Demand Independent of or Dependent upon Demand for Other Products.* There are some minor commodities for which the demand is greatly dependent upon the demand for other commodities. The demand for nails is not independent but is greatly affected by the purchase of other more expensive building materials. In such cases, market demand is not curtailed so much by a rise in price as is the case with more independent commodities.

Minor items incidentally purchased to supplement more important items tend to reach the consumer through channels pro-

vided for the major items, particularly the retail channels. For example, nails are frequently sold at retail lumber yards.

*Persistence of Demand.* There are certain commodities and certain classes of commodities which continue year after year to be purchased in practically the same quantities and which are purchased throughout the year with a relatively high degree of regularity regardless of seasons. Such commodities tend to become well known and to wear well-known and stable channels between producer and consumer. There is relatively small risk and relatively little sales effort needed for such commodities. For these reasons there is a tendency toward low selling margins in such lines. Commodities of this nature may be associated closely in the mind with human necessities. Necessity is the cause of such behavior of demand for many such commodities. Especially is this true if the seasonal element is eliminated. Many writers on marketing subjects have divided goods loosely into necessities and luxuries. None, to the present author's knowledge, have analyzed the matter more searchingly. There is a great danger in the use of the word "necessity." It implies a judgment of what is good for a person or proper for him to desire. Opinions would differ on this. Therefore "necessity" is too much of a foundation of sand upon which to erect any positive laws of marketing. There are several phases of variation from this persistent uniformity which are worth consideration here.

Evanescent desire and demand stand at the opposite end of this scale. Extreme cases are difficult to find and ordinarily can be found only associated with one very definite commodity. Yesterday's newspaper is obsolete and there is no demand for it. The value is highly perishable and has departed, just as does the value of firecrackers soon after the Fourth or that of lemonade at midnight after circus day.

If we consider newspaper circulation as a whole, we find it remarkably stable and persistent as to demand. But if we consider one newspaper we find it a highly perishable article in that it satisfies a fleeting desire. This high degree of perishability of desire causes the marketing machinery to be speeded up intensely and the contact between producer and consumer to be as intimate as conditions and other characteristics will permit. Were it not for this highly perishable desire for a newspaper, newspapers might be shipped by slow freight through the hands of any

number of middlemen and be stored for long times and be speculated upon, instead of being rushed forward with such costly delivery expense.

Short duration of demand may be due to style, fad, or special temporary condition persisting for varying lengths of time. Extreme styles are of brief duration. This fact is well recognized in the style clothing trade, and the trade is becoming increasingly perfected in establishing more intimate and constant contact between the desire of the buyer and the cutting rooms, the printing mills, and the looms. In spite of the scale of production, surprisingly direct methods of marketing are found in this trade.

Seasonal changes in demand may be entirely consistent with necessity, but they are troublesome variations in the market. They tend to increase price by running up overhead expenses of equipment and selling skill which cannot be well employed in dull seasons. They are troublesome to the vendor of physically perishable articles, for such articles cannot be stored for the next season of demand. For style or fad items, seasonal change offers a new hazard when it is present, for it makes a break in trade and the next selling season will have a new and different taste to satisfy.

Inconstant demand means great fluctuations in business, with excessive activity when "times are good" and lethargy when purchasers feel less disposed or less able to buy. This fitful character of demand is found in the furniture trade, the jewelry trade, even in the clothing trade. In lines in which turnover is slow, the merchants take an even greater loss on this class of business and mark up prices that much the more to recoup for the long carrying charges and the longer duration of the hazard.

*Standardization of Desires.* Some commodities have a wide acceptance among many people. One brand of canned peaches may be very satisfactory to a very great number of purchasers, as might be also one brand of plain black cotton socks or one brand of soap. For such products, large-scale production by machine methods may be permitted to serve many buyers with the same standard commodity, merchants may handle it easily in quantities, and mass selling appeals may be a very satisfactory merchandising method. National advertising of products and all impersonal advertising of specific products are based on a degree



of standardization of desire. Highly standardized desires are likely to be persistent desires and to be found quite largely in the class of goods called "necessities."

But desires are not standardized so highly for neckties, party gowns, and oil paintings. People who would gladly buy the same brand of canned beans that their neighbors use would not buy so freely these other things if the neighbors had some like them. Therefore these commodities must be individualized. And since they are individualized, they must be handled to some extent as individual items in trade. Each successive trader must pass on each individual piece for color, style, or whatever features are individualized, unless he is willing to take a risk on the ability of the selling house to provide acceptable assortments. The purchaser wishes to see the individual item before he buys and to consider its appeal to him in comparison with the appeals of other similar individual items. This takes time and requires the purchaser to come to the sales place. Ability to understand the many variations in whim between customers is a more marked asset to the salesman in such lines. In such lines more than anywhere else does a critical knowledge of human nature count in this phase of marketing.

Since the commodity is individualized, its price is also to some extent individualized. For in such lines the bulk demand for all that class of product does not affect so directly the price for the individual unit. An individualized product is worth what it will bring, and consequently we have trial prices, mark-ups and mark-downs, somewhat less of the one-price system, and more clearance sales.

*Cost of the Purchase Unit.* Items costing but a few cents are purchased by the consumer with a minimum of attention and at easily accessible places.

Single items costing relatively large amounts for the individual purchase unit impose a more careful and deliberate attitude on the buyer. The buyer of a home or a motor car or a piano wants to be rather certain of all details before the fateful plunge. He therefore shops about, studies plans and specifications, attends carefully to the words of the salesman, and considers carefully the reputation of the selling house.

Financing the sale of expensive items is complicated by the



difficulty the typical purchaser has in paying the money in a lump sum at the time the article is needed. Installment sales and purchasers' notes become important. Barter of things of value which the consumer has is more common than in less imposing trades. Selling of this kind of products shades into leasing systems and into exchanges for the product of voting security interest in the buying concern.

*Concentration of the Consuming Area.* In cases where the consumers of a product are concentrated in one district or grouped in a limited number of districts, a well organized market may be established in the districts. Such a case is seen in the purchase of textile machinery and in miners' and lumbermen's supplies. In other cases, the users of the product are widely scattered, as for laundry equipment or bank vaults, and a disorganized market leads to impersonal, long-distance methods in the trade. In concentrated districts, salesmen may call frequently in person. For the scattered trade, mail communications, brokers, and agents become more important.

*Buying Habits of Consumers.* Convenience goods, shopping lines, and specialty goods are commonly accepted divisions of consumers' goods based on the purchasing habits of consumers. The characteristics which cause these goods to be so classified are found previously discussed at various points in this chapter. To list these consumer attitudes here is, perhaps, largely redundant. However, in analyzing a market product, all significant variations in consumer attitudes should be noted.

### III

#### A CLASSIFICATION OF MARKET COMMODITIES

It is quite difficult to arrange a classification which will permit market commodities to be introduced in an order which will most systematically cover variations in the marketing field. The commodities are so complex and various in their characteristics that an attempt strictly to segregate a class of products by one characteristic is to throw other characteristics into more or less chaotic relationships. In such a field we must sacrifice simple logic to expediency and accept the compromise which seems most useful at the time.

Scale of consumption is perhaps the most significant division that can be made between market commodities. Commodities to be consumed by many individuals in small amounts must pass through a dispersion process involving jobbers, retailers, consumer advertising, and so on, while commodities purchased in wholesale quantities or on a large scale escape that great complexity of dispersion processes.

Next after scale of consumption, scale of production is perhaps most important. Products produced by many scattered individual producers require a system of concentration with various types of middlemen to bring them to the wholesale stage, while those produced in wholesale quantities by large producers are already concentrated and may dispense with such concentrating structures.

The underlying classification used for this book will be, then, on the basis of scale of consumption and scale of production:

1. Small-scale production—Large-scale consumption. (Illustrated by agricultural products bought on a large scale to be used as raw materials for manufacturing.)
2. Small-scale production—Small-scale consumption. (Illustrated by agricultural products sold in their original form to individual consumers.)
3. Medium- and large-scale production—Large-scale consumption. (Illustrated by products of forest and mine.)

4. Medium- and large-scale production—Small-scale consumption.  
(Illustrated by finished manufactured products.)

*Units of the Marketing Process.* The concentration, wholesale, and dispersion units of a market structure may be illustrated as shown in Figure 8.

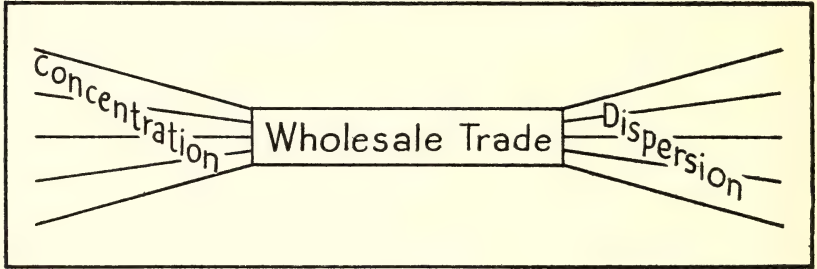


Figure 8

The method of approach in this book is to take up intensive study of each in turn, from left to right, emphasizing one unit after another of the structure as illustrated.

#### AGRICULTURAL PRODUCTS

A great many agricultural products are bought on a large scale as raw materials for manufacture. They leave the farm, pass through various channels of concentration, and arrive at a fac-

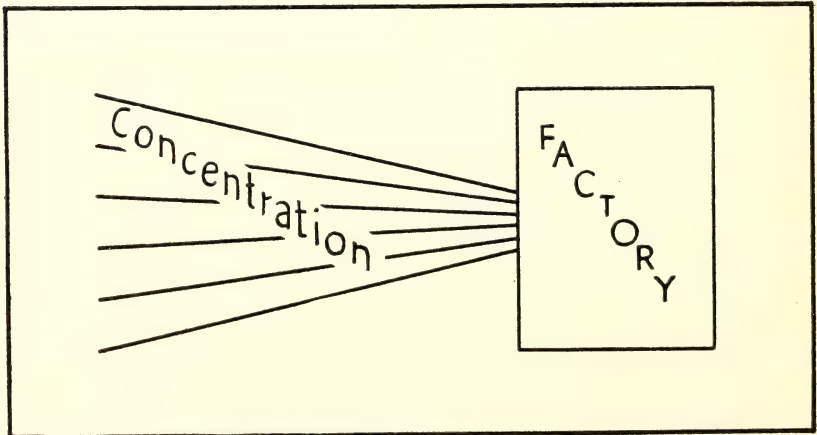


Figure 9

tory where they lose their form to emerge later as some other product. Such products provide excellent material for critical comparative study of concentrating processes. (See Figure 9).

Other agricultural products arising from similar sources go through this concentration process, but instead of stopping at a factory they are carried through wholesale channels to consuming territories and are there dispersed to many small-scale consumers. This is particularly true of perishable food products, such as fruits, vegetables, and dairy products.

This class of products serves to begin the study of dispersion in a field in which there is little aggressive trade promotion and little attempt by individual producers to exert special, individual pressure on the consumer market.

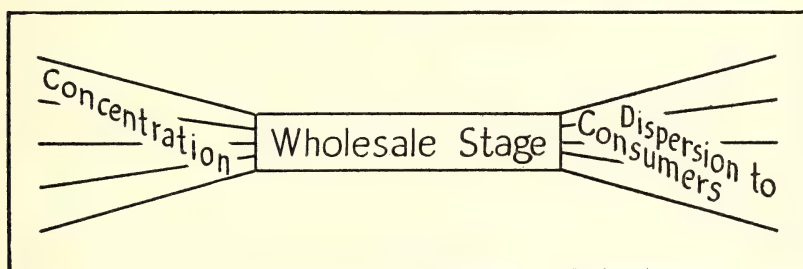


Figure 10

*Manufactured Commodities.* Manufactured commodities are produced on a larger scale, and are commonly produced more generally by machinery, which results in more highly standardized units.

This type of commodity proceeds more commonly from a factory, is produced in relatively large quantities by the individual manufacturing firm, and is dispersed to consumers without passing through the hands of many wholesale traders.

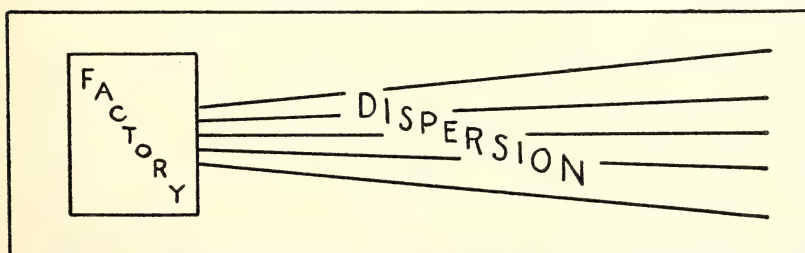


Figure 11



Figure 11 is diagrammatically illustrative of marketing by large-scale factories, highly "machinized," producing large quantities of standard products which may be branded and nationally advertised and distributed rather directly to retailers. It is in this field that aggressive sales management with well executed campaigns to influence consumer demand may be introduced and explained.

*Small-scale factories* are, however, found in many industries because of

1. Specialization in manufacture,
2. Localization of raw material,
3. Hand labor methods, or
4. The style element.

In such cases, the individual firm is not large enough to advertise on a national basis or to send its salesmen direct to retailers. Furthermore, it frequently has a varied product, the result of much hand labor or style policy, which cannot be standardized and branded.

In such cases the trade organization tends to include wholesale middlemen between manufacturer and retailer. (See Figure 12.)

In many industries where the same product may be produced

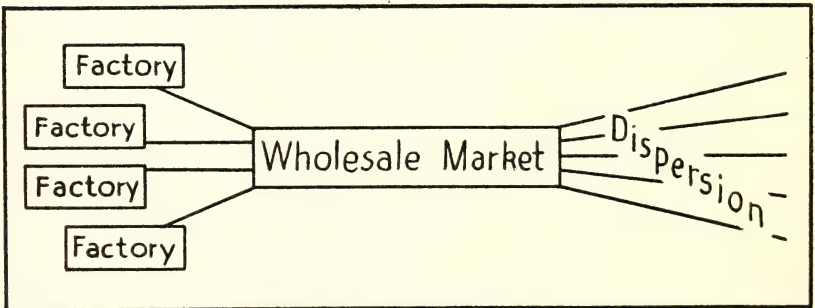


Figure 12

both by large and small factories there is presented a complex trade organization, illustrated in Figure 13.

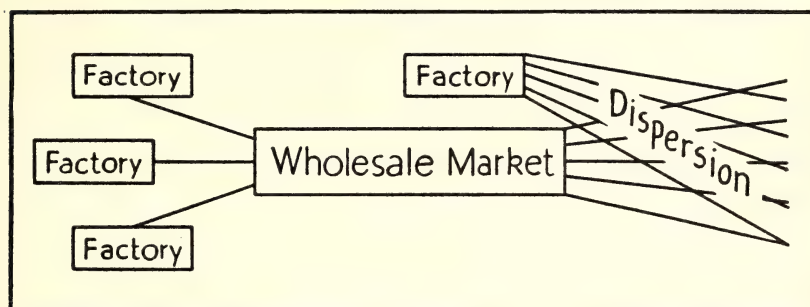


Figure 13

### PRODUCTS OF FOREST AND MINE

Mineral and forest products are presented in a separate section primarily because large-scale transactions by large-scale producers selling direct to large-scale consumers are common in this class of products. That direct relationship is frequently carried to the point of substituting integration for marketing.

Formal contracts for sale are frequent and carefully drawn on account of the large value of the product to be transferred. The sale of long-time leases and royalties are significant.

Since these tend to be bulky products, transportation plays an important role. The typical trade channel for such large-scale trades may be indicated as shown in Figure 14.

In some commodities, such as lumber, coal, and petroleum prod-

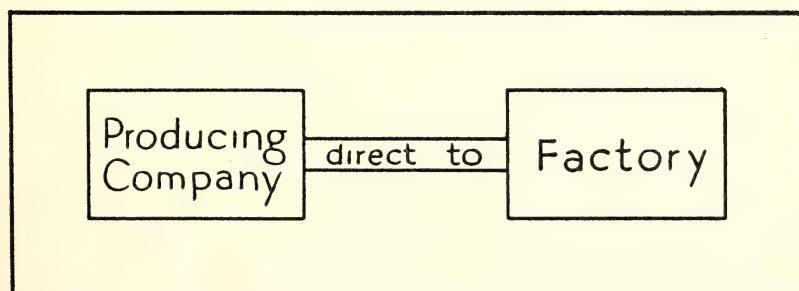


Figure 14

ucts, which are also sold to small-scale consumers, we might illustrate the trade channels as typically more complex (Figure 15).

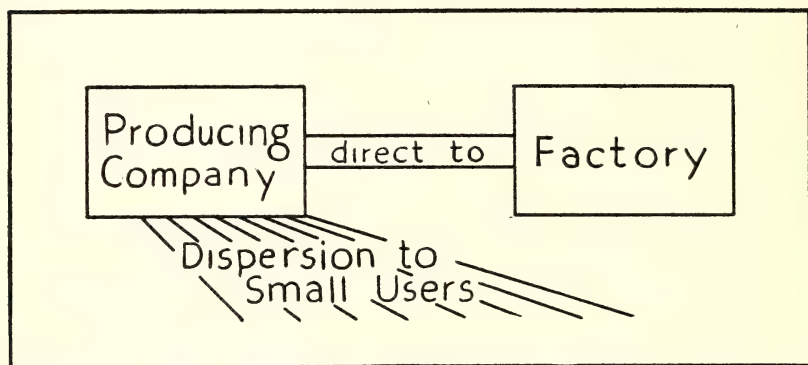


Figure 15

Another reason for segregating products of forest and mine for separate attention is that they represent great natural deposits of raw material of great importance to society as a whole—and so concentrated that they are easily monopolized. Showing the relationship of these products to monopoly control and to antitrust activities of the government is a valuable approach to the trust problem.

#### OUTLINE OF THE PRODUCTS AS THEY WILL BE PRESENTED IN THIS BOOK

##### I. Agricultural Products:

- A. Those bought on a large scale to be used as raw material for manufacturing—mostly nonperishable. (These products used particularly to present concentrating processes.)
- B. Those sold in original form to individual small-scale consumers—mostly perishables. (Used to show (1) the speedy methods used in handling perishables; (2) the dispersion process as articulated directly with the concentration process through the functioning of a central wholesale market.)

##### II. Products of Forest and Mine. (Used to show (1) large-scale sales from large producers to large consumers; (2) monopoly as it presents itself in concentrated deposits of raw materials.)

##### III. Finished Manufactured Products:

- A. Produced in small-scale factories. (Used to show the place of

the jobber in the manufactured goods trade—to illustrate “regular” channels of distribution.)

- B. Produced in large-scale factories. (Used to illustrate direct marketing, national advertising, and aggressive trade promotion over extensive territories.)



## IV

### HOW TO STUDY A MARKET COMMODITY

#### INTRODUCING THE FUNCTIONS

- A. Brief Introduction to Characteristics (Analyzing the Product)
- B. Classes of Product or Important Subdivisions
- C. Channels of Distribution:
  - 1. Concentrating institutions:
    - a.* Methods of doing business
    - b.* Type of organization
    - c.* Costs
  - 2. Dispersing institutions:
    - a.* Methods of doing business
    - b.* Type of organization
    - c.* Costs
- D. Storage:
  - 1. Protection from:
    - a.* Pilferage
    - b.* Moisture
    - c.* Desiccation
    - d.* Cold
    - e.* Heat
    - f.* Suffocation
    - g.* Vermin and insects
    - h.* Bacteria and fungous decay
    - i.* Foul odors
    - j.* Destructive substances
  - 2. Season and period of storage
  - 3. Facilities needed for:
    - a.* Sorting
    - b.* Cleaning
    - c.* Unloading and loading
  - 4. Places where stocks are maintained
- E. Packaging:
  - 1. To protect from decomposition
  - 2. To protect from breakage and crushing
  - 3. To facilitate handling
  - 4. To preserve quantity units
  - 5. To make more attractive

## F. Processing:

1. Why
2. How
3. When
4. Where

## G. Transportation:

1. Distances and routes
2. Methods:
  - a. Ocean carriage:
    - (1) Fast (liner) or slow (tramp).
    - (2) Special storage or loading facilities
  - b. Rail transportation:
    - (1) Fast or slow
    - (2) Special storage en route
    - (3) Freight classification
    - (4) Commodity rates
    - (5) Express
    - (6) Parcel post
    - (7) Loading and unloading facilities
  - c. Local trucking
  - d. Effect of transportation on location of the industry

## H. Standardization and Grading:

1. Classification:
  - a. By general characteristics
  - b. By source
2. Grading:
  - a. Basis of grades
  - b. Method of grading
3. Inspection and control of grades:
  - a. By seller
  - b. By public or semipublic agencies
4. The private brand
5. Weights and measures

## I. Installation, Repair, and Service:

1. Special skill
2. Special mechanical service
3. Location of reserve stocks and supplies

## J. Advertising

1. Appeals
2. Media
3. Specialized institutions

## K. Salesmanship:

1. Need for personal selling

2. Appeals
3. Personnel
- L. Financing:
  1. Source of credit
  2. Method and instruments used
- M. Setting the Price:
  1. Where set
  2. How set
  3. Monopoly practices
  4. Sources of price information
- N. Adjustment of Production and Stocks to Consumer Needs:
  1. Long run (regulating production)
  2. Short run (regulating consumption and stocks)
  3. Organized future trading
  4. Contracts for future delivery
- O. Recent Trends in Marketing Practice
- P. Social Control:
  1. Where needed
  2. History

It is difficult for a student to approach or an instructor to explain the marketing of a commodity with the least waste of time and the clearest understanding. The marketing functions so intermingle in practice and in written accounts that there seems to be no good place to begin and no adequate procedure for avoiding repetition. The significant and chief determining features of one commodity may differ from those of another so that emphasis must be varied and the approach sometimes reversed and altered to get the best perspective on an individual product and to evaluate its significance in explaining marketing methods.

But certain features and certain functions are more generally fundamental than certain other features. To get a clear picture of marketing processes in proper perspective, one must begin with fundamental or basic processes and upon these processes build the understanding of less basic and more changeable functions. The schedule of points here suggested is certainly not the only fundamental method of approach, but it is an approach which the author has found most useful in studying a large number of varied products. It is not recommended as a rigid system but as a suggestive outline to be adapted to each prod-

uct in turn, with the proper change of emphasis on the various parts.

*Analyze the Product.* On pages 12-14 is given a check list of characteristics of market products. A rapid survey of the points there listed should analyze the product in a general way in terms of the characteristics most important in determining the method in which it will be marketed. This introductory analysis may be very brief and general, because as each function is later introduced it may be properly explained on the basis of the characteristics of the product which cause that function to appear in that manner. After each of the important functions has been canvassed in that manner on a comparative basis for many types of products, the student will not only know what variations there are in that function, but, what is far more important, *why the variations are what they are.* Any process of study of the facts about how commodities are marketed is so much wasted energy unless at each step the "reason why" is established. The reasons why may be approached best by means of an analysis of the characteristics of the products. The readings in this volume are factual in nature. This throws the burden of the teaching of principles almost entirely on the instructor to develop in class discussion, or to draw from texts covering the elements of marketing.

*Give Classes or Important Subdivisions of the Product.* Sometimes a product such as "shoes" may consist of men's work shoes and ladies' style shoes and other items which are different in marketing characteristics and are marketed in different ways, just as the general term "meat" as a commodity may cover fresh frozen neck bones, smoked ham, and so on, which have different marketing characteristics and are handled differently in the market. To avoid confusion, it is well to segregate carefully in the mind these different types of products for the sake of understanding more clearly the adaptation of the functions to each.

*Outline in General the Chief Channels of Distribution.* To provide a visual framework upon which may be hung the later more abstract ideas of functional analysis, it is usually helpful to outline in a very general way the chief channels of distribution. It is usually most convenient to chart in chronological order,



taking the product from its place of production through the whole-sale stages on to its retail outlet.

This outline of channels is logically out of place, it must be admitted, since channels of distribution are results rather than causes of most of the significant variations in marketing methods. Its usefulness as a teaching and learning device, however, excuses the lack of logical significance.

*Explain the Storage of the Commodity.* Storage is fundamental. Upon storage requirements depend many variations in other functions.

Protection needed by the product in storage opens the question of the nature and degree of its perishability, which will be found to explain later so many features of transportation, financing, standardization, and other functions.

The time and period of storage opens the question of the seasonal nature of the trade, with all of its train of effects, and also introduces a significant influence on market risks and on financing methods.

Location of storage stocks and special facilities required are of less fundamental importance, but may well precede a study of other functions.

*Briefly Describe and Explain Packaging Methods.* Packaging is really a part of the subject of storage, since it, too, is concerned largely with protection of the product. Its mention in this order is on account of its relationships to storage rather than because of any fundamental effect it has on other functions. The feasibility of packaging will be found to prepare the way for an understanding of branding and advertising.

*Notice Processing, if Any of Importance Occurs.* Minor processing, such as cleaning of grain or assembling of machinery, may well be briefly noticed. Processing might be conceived as a quite significant function. If we wish to consider the wheat and flour trade as a single unit, then the process of milling is significant indeed. If we wish to consider the live stock and meat trade as a unit, then slaughtering and packing become exceedingly important processes. For some purposes that is the most satisfactory approach. However, in this book, any considerable alteration in the form of the product by manufacture is considered to have

consumed the one product and ended its marketing history and to have created a new product with a new marketing process yet to be started.

*Explain Transportation Methods and Routes of Trade.* At this point, geographic factors are brought to a sharp focus. Analysis of producing territory from the point of view of transportation equipment and method begins to throw new light on why the channels of concentration are what they are.

If one refers back to storage for its relationship to speed in transportation and special protection in transit, the understanding of trade channels and trade methods takes more coherent form.

Place of storage of reserve stocks as related to railroad rates, particularly car-lot or l.c.l., gains new significance and a cornerstone underlying the jobber trade is laid.

*Analyze Standardization and Grading.* Referred back to the source, method of production, and perishability or stability of the product, the nature of standardization may be placed in proper perspective. The sorting systems used for the unstandardized products of nature may be contrasted with the mechanical standardization of machine-made products.

The bases of classes and grades may be traced to the ultimate test of use, but with due attention to territorial source names as grade denominations and to the use of external, visual characteristics as rough tests of useful quality.

Type of standardization is to be related later to branding and advertising.

*Installation, Repairs, and Service.* These items should next receive attention if specialized equipment or skilled labor is required. Manufacturers, in general, attempt, so far as possible, to produce their goods in completely finished form so that the average consumer easily may install and use the product without skilled assistance or any considerable amount of instruction. However, many products, particularly those of a mechanical nature, must be articulated carefully with other mechanical units or permanently or carefully fitted into buildings in varying conditions. In such cases, the manufacturer may find it necessary to sell installation service along with the product. Such a situation favors direct marketing and a rather direct contact be-

tween manufacturer and consumer. This feature should always be considered in a critical study of channels of distribution. Repair parts must be maintained in reasonably convenient reach of the consumer of many mechanical products. Since such repair service must be provided by the manufacturer who hopes to keep good will for his company, this is another force tending toward more intimate contact between producer and consumer.

*Advertising.* With the background of the other functions previously listed, a satisfactory approach may be made to the subject of advertising. Storage, standardization, and packaging, as previously discussed, will serve as a basis for discussion of the feasibility of branding and the correlation between the product which the consumer accepts and the advertised brand. Channels of distribution, as previously introduced, form part of the background to be used. The foundation is then in place for a study of appeals.

*Salesmen and Salesmanship.* Salesmanship in some form occurs all the way along the line from producer to consumer. The product must be sold to each successive middleman and finally to the consumer. The variety and nature of these trades can hardly be discussed until most of the other points previously mentioned have been covered. At this point, trade practices and methods of selling may be introduced, to be followed by an analysis of the type of salesmen needed and the proper method of selecting, training, and paying such salesmen.

*Financing.* No extended discussion of financing should be found in a course in marketing, but some attention may well be paid here to the relationship of sources of credit and of types of credit instruments to such features as type of product, channels of distribution, standardization, and storage. Indeed, in some cases financing requirements will be found to have a material effect on marketing methods and serve to explain why some of the marketing methods are what they are.

*Setting the Price.* Methods by which prices are made in the trade can be systematically presented only after the general organization and methods of the trade are understood. A convenient approach to the analysis of the price-making machinery is to discover the center or centers from which price information tends to radiate, or the markets that are commonly taken as points



of reference throughout the trade. The mechanics of such central markets deserves special attention to show what is the genesis of supply forces and demand forces there in operation, and exactly how they are brought to bear in that market. Following this, there may be presented an analysis of how price adjustments throughout the scattered units of the trade are articulated with this central market price. The peculiar problem of varied individual manufacturers may then be studied better in the light of general price-making conditions in the trade.

*Adjustments of Production and Stocks to Consumers' Needs.* The market must not be looked upon as a one-way track over which things go from producer to consumer. It is also important to consider the market as *an index to conditions of production and consumption* and as *a control over production and consumption*. In some trades, such as wheat and cotton, we find speculative markets or other structures serving not so much to facilitate the passage of an actual market product but rather as a governor to regulate stocks, consumption, and even the production for the future. In other trades, such as perishable food products, we find that marketing structures have been varied and such institutions as nationally articulated car-lot wholesaling have been evolved to serve as indicators and regulators of territorial stock needs. In the style goods trades we find structures altered better to articulate production and stocks with the rapidly varying whims of the consumer.

A study of the flexibility of production as to quantities and types serves as an introduction to price cycles and forecasting in the trade.

*Recent Trends in Marketing Practice.* No better way of lifting a discussion of a commodity marketing out of the depravity of mere description can be found than an attempt to analyze *why* recent trends are what they are. Such a study requires a thoughtful analysis of preexisting methods as viewed in the light of new conditions. Any instructor who considers the commodity approach as lacking training in thought may well break a few spears on such a problem.

*Social Control.* Social control in the marketing of a product takes the form of social control of certain marketing functions. As such, it may well receive some attention as the various func-



tions are being reviewed. However, there is a special virtue in making a study of social control the final point in the study of a commodity. A critical review of the whole market structure for the commodity may be accomplished by an approach to social control by (1) analyzing the social weaknesses and wastes of the system as evolved under individualistic economy and (2) making a critical study of the methods and results in the attempt to improve the conditions by social control.

If the trust problem has not previously thrust itself into the price discussion, it may well be considered here.

*Readings Do Not Cover All Phases of Each Product.* No attempt has been made in assembling the readings in this book to cover systematically all functions for all commodities. Such a program would result in endless duplication of ideas and require a library rather than a volume. Instead, there are here presented readings that stress the most distinctive features of the various trades. An instructor using these materials may wish to supply rapidly from his own knowledge the missing links. The readings are, however, sufficiently complete to permit the average student to bridge the gaps for himself.

INTRODUCTORY READINGS  
IN MARKETING

SECTION II

AGRICULTURAL PRODUCTS

- A. PURCHASED ON A LARGE SCALE AS RAW MATERIALS
- B. CONSUMED ON A SMALL SCALE



## A. PURCHASED ON A LARGE SCALE AS RAW MATERIALS

### V

## WHEAT

### INTRODUCTION

WHEAT is a crop widely distributed throughout the civilized world and as widely used throughout the civilized world. There are local phases, for wheat is consumed locally in almost every place where it is produced. There are domestic phases, because wheat is shipped from various parts of one country to other parts of the same country in very great quantities. In fact, the domestic market for wheat is for most countries the important phase of marketing, and the institutions which we find established in the various countries for the handling of wheat are arranged largely as they are in order to accommodate distribution within that country. For most purposes, we shall not go far wrong to consider wheat as a domestic crop.

To be more explicit in regard to geographical distribution in the United States, we should note that wheat occupies the Great Plains area or the border line between the humid and the semiarid parts of the United States. It is the predominating crop in the Dakotas, Minnesota, and Kansas, with intensive distribution in all the other Great Plain states from Minnesota and the Dakotas to Texas. Winter wheat requires a winter sufficiently open and mild to prevent killing by frost. Hard winters prevent the effective use of winter wheat in the Dakotas, Minnesota, and northern Nebraska, as well as in the prairie provinces of Canada and the north. This is spring wheat territory. Winter wheat is found intensively in Kansas, Nebraska, and parts of Oklahoma, and is scattered pretty generally throughout the humid sections of the United States, especially in the South.

In the Pacific Northwest, particularly in Oregon and Washington, there are intensive wheat sections where great quantities of wheat are raised on very large wheat farms, farmed by machinery and with hired gangs.

In fact, a bird's-eye view of the wheat industry in the United States shows it to be widely spread over the northern two-thirds of the country and quite intensively developed in some belts. Variations from



limited production in some sections to quite intensive in others is reflected in the market methods and institutions found in the various sections for the assembling of wheat.

Climatic variations between the producing sections are responsible for physical variations in the product. Thus we have a large quantity of hard wheat, of high protein content, coming from the northern spring wheat regions and a large quantity of softer wheat, of higher carbohydrate value, coming from the more humid and temperate sections of the winter wheat belt. We shall observe that various mixtures and blends of these wheats are desirable in order to produce a flour of the exact content, color, and consistency desired for various kinds of baking.

### *Foreign*

We have noticed that wheat is a world crop. To be somewhat more explicit, we may observe that it is extensively produced in the central part of North America, throughout Europe and the western border of Asia, in the River Platte section of South America, and to a lesser extent in Australia, India, and Egypt, as well as occasionally in many scattered points throughout the world.

The destination of the surplus wheat of the world is the crowded industrial section of northwest Europe, so that we find this section (as exemplified and represented by the Port of Liverpool) to be the great central market towards which the wheat of the world tends to converge. Even in a study confined to the domestic wheat, we should be interested in this general world movement and particularly in this Liverpool focus, on account of the effect it has on wheat prices even for the great quantities of wheat which never reach it.

### *Concentration of Value*

Wheat might be classed as a product of semiconcentrated value. It is not the kind of product which normally may be shipped at high transportation costs to very distant lands, but neither is it one of the very bulky products of low value which cannot be shipped for long distances under any but the most unusual circumstances. A bushel of wheat in the last few years has been valued anywhere from fifty cents to three dollars, depending on the wheat market. For a 1,000 bushel carload of wheat, this value, of from \$500 to \$3,000, is obviously adequate to pay the freight cost of sending a car for a very considerable distance before the freight cost absorbs any high percentage of the value of the grain.

*Stability*

Wheat is a rather highly stable product. It may be carried in almost any sort of container with walls sufficiently sound to withstand the pressure of the wheat and prevent the grains from working out through cracks, and to keep the rain out of it. It is not susceptible to any but high degrees of atmospheric moisture, it does not tend to rot or decay of spontaneous causes, and it is to but a limited extent liable to damage by insects, although damage from this cause is one of its weakest points.

Wheat is not particularly unstable in value. The prices may change because of harvest conditions and other reasons, but it does not usually change so greatly as to make the delay of a week, or a month, or even a year, destructive to any major part of its value.

This general stability of wheat as a product has undoubtedly been of very great importance in placing it among the first, if not as the first and most important of all market products.

*Seasonal Adaptation*

In the United States, winter wheat is largely cut within one month, the latter part of June and first of July. The spring wheat crops of Dakota and Canada are harvested a month or two later. The entire harvest season for wheat in the North American countries is thus thrown within the space of three months, and the wheat which is produced ready for the market in these three months must be distributed throughout the 12 months for consumption. This involves a very considerable amount of storage for this product; fortunately, the physical nature of wheat makes such storage possible and convenient.

When we observe the wheat production of the entire world which supplies the consuming market of northwest Europe, we find that the contributions from the two hemispheres come in with regular sequence throughout the year; in the autumn months, heavy shipments may be expected from North American and European points, while in the spring and summer receipts may be more heavy from the producing countries of the southern hemisphere, where the harvest begins in February and March.

*Scale of Production*

In general, wheat is produced by individual farmers. A farmer's interest in the wheat crop varies from that in an incidental cash crop to that in a farm crop of the large acreage produced by the wheat

farmer of the Great Plains area who has no other market crop. There are at least three or four million farmers in the United States who derive a very material part of their income from the fields of wheat and who rank it among their major crops. We shall observe that the methods of marketing a product such as wheat is vastly different from the methods employed by a large industrial concern, which within its own field may supply as much as one-fourth or one-third of the entire consumption of the United States.

### *Use*

Wheat is used largely to be ground into flour, and for the present we shall not carry it beyond this point. This means, then, that wheat as such is not used by the ultimate consumers, but by the mills, which are large-scale consumers. Therefore we shall expect the distribution of wheat from the central market to the mills to be a much more simple matter than would be the case if the wheat had to be distributed among our hundred million consumers.

The fact that different mills use flour of different grades designed for somewhat different purposes leads to a certain complexity of criss-cross transportation of the various grades and types of wheat and explains why there is frequently observed on the Kansas City market, amidst the many shipments of wheat to the northeast, other incoming shipments of wheat from Minnesota and other points to the north and east of Kansas City. This is because wheat is not a single, uniform, homogeneous product, but rather a series of different types of very similar products, used for slightly different purposes.

### CHANNELS OF DISTRIBUTION OF WHEAT

Ordinarily, the farmer sells his wheat for cash to the local elevator company. The company consigns carloads to commission men in the central grain markets. These sell the wheat for the account of the local elevator to millers, to exporters, or to wholesale grain merchants. The millers who buy the wheat may be small millers who buy through other commission firms in the central market, or they may be large millers who own seats on the grain exchange and buy for themselves. The exporters and the wholesale grain merchants generally own seats on the exchange and buy for themselves without the intervention of a commission man. Many times, however, they buy through a commission firm which deals with the commission firm representing the seller.



There are many short cuts and variations from this method. The local elevator frequently sells direct to nearby mills or even direct to large mills at some distance. The farmer occasionally ships his own wheat in carload lots to the central market. The system described is more frequently found in the northern states than in the southern part of the wheat belt.

The central market referred to above is the market for spot or cash wheat. It is usually held in the same building and in connection with the sale of wheat futures, but it is to be carefully distinguished from such futures sales. The futures market is a market for contracts for the future delivery of grain, rather than a direct link in the marketing chain.

The exporter of grain in our central markets makes various kinds of contacts with the European purchasers. He may sell in this country and transfer all title and responsibility for distribution to the European importer. He may consign wheat to his own office, or to a commission representative in some European market such as Liverpool. There he may sell to mills or to wholesale grain merchants.

### COUNTRY ELEVATOR AND COUNTRY GRAIN MARKETING<sup>1</sup>

The country elevator or warehouse is devoted to the storage and handling of grain in the country. It buys and stores grain hauled in by the farmers in wagon lots and combines such wagon lots into car lots, which it sells outright to various purchasers, or ships for sale to some city or town that is a point of distribution for grain either on a large or small scale. The great bulk of grain which is marketed in the United States is handled through such country elevators and warehouses. Country elevators and warehouses are of two general classes, individual and line. An individual house is one operated as a unit within itself. A line house is one of two or more operated at different towns by a central organization. A number of such concerns operate more than a hundred houses, and there are numerous line companies operating all the way from 25 to 75 houses. Altogether, eight different types of elevators and warehouses are distinguishable—four individual: cooperative, independent, mill, and malster; and four line: commercial, cooperative, mill, and malster. Only five of these types are of major

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<sup>1</sup> From *Report of the Federal Trade Commission on the Grain Trade*, Vol. I, "Country Grain Marketing," September 15, 1920.



numerical importance, namely, commercial line, mill line, independent, individual, cooperative, and individual mill.

The commercial line elevator is one operated for the purpose of deriving a merchandising profit from the purchase and sale of grain. A mill line, on the other hand, while it may buy and sell some grain, is usually run largely with reference to supplying the grinding requirements of one or more mills. The individual cooperative is a single elevator or warehouse operated or owned and operated by grain producers and engaged in buying and selling grain. It differs from the independent in the fact that the latter is not operated, or owned and operated, by producers. On the other hand, the individual mill, like the mill line, is usually concerned largely with supplying mill grinding requirements and only incidentally with buying and selling grain for profit. In some cases the individual mill elevator does no merchandising whatever. It is, however, a single unit and not, like the mill line house, one of several operated by a single organization.

Commercial line elevators are relatively most important in Nebraska and in the four northwestern states; independent elevators predominate in Iowa and Kansas and in the states east of the Mississippi. The cooperative type is most important in Iowa, Kansas, Nebraska, Minnesota, Montana, and North and South Dakota. Mill line elevators are relatively most important in Oklahoma, Kansas, and Missouri, and individual mill elevators prevail in Missouri and east of the Mississippi in Indiana, Ohio, Wisconsin, and Michigan. An outstanding development in the marketing of grain in recent years has been the entry of the farmer into the elevator business, as shown by the growth in the number of individual cooperative elevators organized by farmers and used by them in marketing their grain.

### COOPERATIVE HOUSES

As commonly employed in the grain trade, the meaning of the terms "cooperative" and "farmers" as applied to the country houses is decidedly inexact and indefinite. Both terms are frequently, perhaps most commonly, used to describe houses operated or else owned and operated by farmers. But they are also employed in many instances, especially the term "cooperative," to designate those which pay patronage dividends. The loose usage of both terms is indicated by the fact that one often hears the term "patronage dividend<sup>2</sup> cooperatives."

<sup>2</sup> A patronage dividend house is one which pays a dividend based upon the

*Relative Importance of Cooperatives*

Although in practically every one of the large grain producing states the cooperative houses are exceeded in number by either, or both, the commercial line and independent houses, the influence which is exerted by the first mentioned type in determining the prices paid for grain at country points is probably greater than that of any other type of house. This is because the distribution of the cooperatives is usually such that there is seldom to be found more than one cooperative at a single station, although there may be two, three, or even more houses of either one or more of the other types operating at the same point. The cooperative house came into existence, in large measure, in order to remedy the situation created by the lack of competition in country grain buying and the practices employed by the various other types of elevators and warehouses. As a rule, one cooperative elevator in a locality was all that was necessary in order to secure the economic relief desired by the farmers, although two, three, four, and even more houses of another or other types might be in operation at the point in question.

*Opposition to Line Companies*

Several factors are undoubtedly responsible for the competitive conditions created by the cooperative or farmers' elevators. Of prime importance among such factors must be reckoned the more or less unfriendly attitude of many farmers and farmers' organizations toward the line elevator companies because of injuries which the farmers believed they have suffered at their hands. This attitude, of course, operates to a certain extent to prevent the various line companies from procuring grain even though they offer equal or higher prices therefor.

*Explanation of Geographical Distribution of Types of Elevators—Commercial Lines and Independents*

It appears probable that in the very early days the independent type developed in the eastern portion of the central grain producing area and so firmly established itself there that line houses never attained the relative importance which they gained west of the Mississippi. The

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amount of business done by the house with those from whom it purchases. While the returns to the Federal Trade Commission's inquiry as to the basis of patronage dividend payment are not sufficiently numerous nor comprehensive to warrant presentation, it may be stated that the method of paying such dividends most frequently reported was according to the number of bushels of grain sold to the elevator, although a considerable number of houses based these dividends upon the value of the grain thus sold instead of upon the quantity.

latter area, according to the information obtained, especially Minnesota and the Dakotas, developed with comparative rapidity as grain producing territory. Local capital accumulations were not at first nearly sufficient to keep pace with this development, and as a result elevator construction was financed and large lines built up by concerns operating from the terminal market which either possessed the capital or were able to obtain it.

### *Mill Elevators*

Mill elevators are relatively important in those states in which the local milling industry is highly developed and is less centralized than in the Northwest. The seven states having the largest percentages of mill elevators are, in the order of importance, Oklahoma, Missouri, Kansas, Wisconsin, Ohio, Indiana, and Michigan.

### *Hedging Operations of Country Houses<sup>3</sup>*

The average country elevator is of wood construction, most frequently of the cribbed type. About one-half of the country elevators are equipped with cleaning machinery, and slightly less than 80% handle other commodities than grain. The five principal side lines so handled, as indicated by the proportion of elevators reporting their handling, are, in order of importance, coal, feed, flour, building material, and seed. On the average, the country elevator buys slightly less than 100,000 bushels of grain annually, of which about 36% is wheat, 31% oats, 24% corn, 7% barley, and 2% rye. The average individual cooperative elevator, however, buys annually about 153,000 bushels, the individual mill elevator 113,000 bushels, and the independent elevator 103,000 bushels. The commercial line and mill line elevators, on the other hand, buy on the average only about 77,000 and 79,000 bushels, respectively. About 70% of the grain shipped by country elevators goes to terminal markets (those markets which receive annually more than 1,000 cars of country grain) and about 7% to smaller markets (those receiving less than 1,000 cars annually). The local mills absorb 13½% of the country elevator shipments and interior brokers 6%; about 2% goes to feeders, and approximately the same proportion to miscellaneous purchasers. Of the grain shipped to specified markets, about 71% is sold on consignment, the balance being sold "to arrive" or "on track" to representatives of these market organizations.

<sup>3</sup> Continued from the *Report of the Federal Trade Commission on The Grain Trade*, Vol. I, September 15, 1920.



About 40% of the elevators and warehouses generally hedge their grain, another 10% hedge it a limited extent, while about 50% report no hedging. The proportion of elevator hedging in the various states varies directly with the proportion of consignment sales reported, and also directly with the extent of commission house financing of country elevators and the proportions of line elevators reported. Hedging is usually done in the markets to which the grain is generally shipped.

"Hedging" is the term commonly applied by the grain trade to the method employed by many dealers in cash grain of protecting themselves against losses due to market fluctuations by executing with cash purchases and sales practically simultaneous future transactions upon the opposite side of the market. This is done upon the assumption that the prices of cash and future grain will move up and down together and that, as the trades are on opposite sides of the market, the decline or advance of either will be compensated by a corresponding fluctuation in the other. Country elevators which hedge their grain do so primarily for the purpose of protecting their buying margin—that is, the difference between the prices paid the farmer and those prevailing in the terminal and other markets. If these elevators could sell the actual grain immediately after purchase, hedging would be unnecessary.

Though country elevators obtain funds from numerous sources, the major portion of the financing of elevators is done by local banks, commission houses, and the head offices of the line elevator companies. Line elevators, of course, procure the great bulk of their funds from their head offices, and the individual elevators are financed chiefly by either the commission houses or the banks. Commission house financing is of great importance in the four northwestern states. A considerable amount of such financing is also done in Wisconsin, Illinois, and Missouri. In the other principal grain producing states it is unimportant. The average maximum amount of borrowing per elevator in the crop year 1913-14 was \$12,301; in the crop year 1916-17, \$17,309. The average rate of interest reported in both years was slightly above 7%. Of 87 elevators visited in Illinois and Iowa, 73 reported that they borrowed from local banks, 11 from local individuals, and only 3 from commission firms or houses. Out of 122 elevators in the Northwest interviewed on this same subject, 101 borrowed from commission houses, 52 from local banks, and 8 from individuals.

#### *Physical Difference of Elevators and Warehouses*

A country elevator is a building specially designed for elevating, stor-



ing, and loading grain in bulk, in which form it is handled throughout the operation. An endless chain of scoops carries the grain to the top of the building. There it is spouted into the bin where it is stored. A country warehouse, sometimes called a flat house, is usually nothing but a shed in which grain is collected and stored in the country. Almost any building will serve for this purpose, and in practice warehouses will be found which formerly served as barns, stores, or the like. Both elevators and warehouses purchase grain chiefly from the farmers who haul it in by wagon.

### *Bulk and Sack Handling*

In the area to the westward of the great grain growing states of the Central West and extending to the Pacific Coast, the warehouse is much more important than the elevator. The great bulk of the grain produced in this area is raised in California, Oregon, and Washington, all three of which are important grain producing states. In these states the sack handling method predominates and always has. The production of the other states in this group is relatively negligible. While there is a large and important milling demand for wheat in these states, especially Washington and Oregon, a very large proportion of the grain grown, especially wheat, is exported.

Over 25 years ago, attempts were made, particularly by the Northern Pacific and the Great Northern railroads and the Oregon-Washington Railroad and Navigation Company, to handle grain in bulk in the Pacific Northwest section. Elevators were constructed and much of the grain was moved from interior points to the coast in bulk, particularly to the Portland terminal. This attempt at bulk handling, however, soon ceased, and the elevators were either torn down or converted into flat warehouses. One reason for the failure of this attempt was that shippers refused to receive grain for export unless it was sacked. At that time, and earlier, the larger part of the grain shipped from Seattle, Portland, and Tacoma went to Europe, generally moving in sailing vessels around Cape Horn, a voyage both long and rough. The vessels, not being equipped for bulk handling, soon found that the only safe way to handle the grain was in sacks. Otherwise, there was great danger that the cargo would shift and the vessel fail to right itself. In addition, the trip through the tropics overheated bulk grain, and after several disastrous experiences the insurance companies made their rates so high as to be practically prohibitive; in some instances they even refused to insure bulk grain at all.

A second reason for the failure of bulk handling was found in the fact that the farmers had grown accustomed to the use of sacks prior to railroad development, when shipments from the interior were handled through river warehouses and river boats, neither of which was equipped for bulk handling.

The revival of agitation for bulk plan of handling grain in the Pacific Northwest section has been largely due to the increase there of farmer's cooperative companies, which are generally favorable to this method, and to the abnormally high price of sacks resulting from war conditions.

### DEVELOPMENT OF COUNTRY ELEVATORS AND COUNTRY MARKETING

#### *General Characteristics of Early Grain Marketing—Chicago Territory*

In the very early days, a large percentage of the grain was consumed locally. At that time urban centers were not large, and a highly concentrated consuming demand was not as yet in existence, except in a few cases. Water power gristmills were then quite common throughout the country districts, and the farmer took much of his grain to these mills, where it was converted into flour and other grain products. In those days, the grain fields were usually either adjacent to river courses or relatively close to the larger towns, and surplus grain was either hauled by wagon directly to the towns or shipped to them by boat on the rivers or canals.

Thus, in the early days, before the advent of railroads, grain was hauled to Chicago by the farmers from as far as 100 miles inland and sold by them on the streets to local buyers. When, because of the extension of railroads to the West and South, the receipts became so large that this method of selling was no longer practicable, a Board of Trade was formed where buyers and sellers could meet together and handle the grain more expeditiously and economically. After the railroads were built, grain men on the Board of Trade furnished capital to put up elevators at country stations. The farmers then sold their grain at their nearest station instead of hauling it to Chicago, and, as the railroads continued to branch out, the number of elevators located at country stations multiplied.

#### *The Northwest*

Flour was first produced in commercial quantities at the Falls of St.

Anthony, now Minneapolis, about 1853. While the mill capacity at this early period was quite small, it was larger than the supply of grain locally; hence, grain was brought by barges down the Mississippi River and up from Iowa, Illinois, and Wisconsin. Writing in 1913, the chief grain inspector of the Minnesota Railroad and Warehouse Commission stated that even as late as 30 years previously the raising of wheat was confined largely to that area of Minnesota tributary to the Mississippi and that the markets along this river, including Winona, Wabasha, Red Wing, and Hastings, were among the most important in the world. Millions of bushels of wheat were marketed by farmers at these landings and taken down the river.

What is said to have been the pioneer elevator of the upper Mississippi was probably that erected at Prairie du Chien, Wisconsin, some 60 years ago, which became one of the objectives of grain shipping from Minnesota in the prerailroad days. It had a capacity of nearly 300,000 bushels and was built standing in the water so that, even at a low stage of the river, steamers and barges could tie up at its doors and load and unload. Before 1857, there was no railroad to the Mississippi north of Dubuque, and all the produce of the country north of this point had to be brought to market on steamboats. St. Louis was the great market, although Galena and Dunleith, Illinois, received a small share of the business.

### *The Southwest*

With the extension of the grain producing area of the Southwest across the Mississippi, the importance of St. Louis as a country marketing center was greatly increased. In the earlier days, when the Mississippi and Missouri River courses were used to carry the traffic of that great interior tributary section, St. Louis, on account of its location, became the center of exchange for this traffic and thus naturally attained importance even then as a country grain market. Chicago's importance as a grain trading center was also much increased by this southwestern extension of the grain area. When this area was further extended beyond the Missouri River, Kansas City and Omaha rapidly developed as important local grain marketing centers.

### *Pacific Coast*

While some grain was grown in the Pacific Coast section in the first half of the last century, it was mostly consumed by local mills, and not until the last quarter of that century was grain produced there in suf-



ficient quantities to be of noticeable importance. By that time, a large surplus was being marketed by boats from territory adjacent to the Sacramento and San Joaquin rivers in California and the Columbia, Willamette and Snake rivers in Oregon, Washington, and Idaho. San Francisco, Portland, and Spokane apparently were the first to become important as grain distributing and milling centers. With the completion of the transcontinental railroads to Tacoma and Seattle and the establishment of regular trans-Pacific service from these points, these also became important marketing points for grain, especially for that produced in the State of Washington.

## THE PURCHASE AND STORAGE OF GRAIN

### *Methods of Sale by Farmer*

In marketing his grain, any one or more of at least four different methods are usually available to the farmer. He may dispose of it (1) by outright sale either to the country house or other local buyer, (2) by sale after storage in the local elevator or warehouse either to the house or others, (3) by sale on contract before actual delivery, or (4) by sale on his own account in the terminal market. The first method is the most important in the Northwest and probably in all grain producing states in the Central West, and the second method prevails in the Pacific Coast area.

An outright sale is, of course, the result of bargaining between the farmer and the local elevator or warehouse agent or other buyer, and the grade, dockage, and price are usually settled at the time of delivery. The farmer may deliver the grain to the elevator to be stored until such time as he may decide to sell. Under these circumstances, the grade, dockage, and storage charges on the grain are fixed at the time of delivery at the elevator. The matter of price is left open, of course, until such time as the farmer decides to sell, although he may seek to obtain the promise of a premium.

Contracts for the sale of grain in advance of delivery are likewise sometimes made by the farmer with the elevator or warehouse. The farmer usually contracts with the idea of obtaining funds, or else because he believes that prices either will be lower at the time of delivery or will not have advanced. On the other hand, the elevator usually contracts with the idea of securing tonnage.

Grain contracts between the farmer and the elevator may or may not specify the price. If the price is stated, the matters of grade and dock-



age only are left to be determined upon the delivery of the grain at the elevator. Should the grain delivered, however, fail to meet the specifications of the grade contracted for, the matter of price is determined by the extent of the differential between the price grades at the time of delivery, though some contracts specify the differentials to be employed.

#### *Local Purchasing Factors Other Than Elevators and Warehouses*

Besides the elevators and warehouses, there are operating in the country interior brokers, track buyers, scoop shovelers, solicitors for terminal dealers, feeders, retailers, country mills and other converters, or their agents. The number and importance of these buyers vary according to a variety of conditions. At various points and at different times, one or more of these buyers may be found in more or less direct competition with the local elevators or warehouses in purchasing from the farmer.

Interior brokers operating in the country grain territory most often make their headquarters in one of the larger local towns affording transportation facilities in various directions. They purchase grain on a brokerage basis from practically all factors in the country market for anyone who may desire it, including terminal market dealers. The bulk of the purchases made by such brokers is bought from country houses in carload lots. Comparatively little grain is bought by such dealers directly from farmers, and of the grain so purchased practically all is in carload quantities.

Country track buyers are usually located at points in the country from which it is convenient to keep in touch with a considerable number of country stations. These buyers purchase grain in cars "on track" at the elevator and also buy in car lots from farmers, reselling to whatever purchaser offers the best price.

The scoop shoveler, or "scooper," buys grain only from farmers and loads it directly into cars from the wagons. The usual method of loading is to shovel the grain into the cars by means of scoop shovels; hence the name of this class of grain buyers. At times, the "scoopers" employ contrivances known as track loaders, or portable elevators. Scoop shovelers are usually transient, although there are some men who engage in the business regularly at the same place.

The purchase of grain from farmers by representatives of terminal market grain dealers is usually spasmodic. Frequently, their purchases are made from farmers who, dissatisfied with the prices offered at the station, have loaded their grain with the intention of consigning it or

selling it "on track." The bulk of the grain purchased by solicitors of terminal market concerns, however, is from elevators, warehouses, and scoopers rather than from farmers.

### *Grading*

In determining the grade of a load of grain, the elevator agent usually scans the load and examines several handfuls therefrom for shrunken kernels, and admixture with other grains, dirt, smut balls, and the like. If a careful agent, he will also plunge his hands far into the load for the purpose of discovering any signs of heating. If the grain has been bin-burnt or contains smut or garlic, this can usually be detected by smelling samples of the grain, any such contamination giving rise to strong, disagreeable odors. Following this examination, the test weight is taken, the weight of the grain being an important element in determining the grade. For this purpose a device known as a "hand tester" or "test kettle" is employed.

### *Weighing In*

After the wagon has been driven on the scale it is weighed and the weight noted by the agent. The cover of the unloading pit is then lifted, and, if the elevator is equipped with a dump scale, the grain is unloaded by elevating the front end of the wagon and allowing the grain to run out of the rear end into the pit.

### *Payment for Grain*

The price per bushel having been arrived at, the agent draws a check or draft to the farmer for his grain, provided that the transaction is an outright purchase. Local elevator companies usually have accounts with banks in the locality and issue checks. In the case of the line companies, the agent usually draws on the line company, most of which have arrangements with the local banks at their various stations for cashing such drafts. When there is no bank at the station, arrangements are made with one or more local merchants.

## THE SALE AND SHIPMENT OF GRAIN

Contracting with farmers for their grain by both warehouses and terminal market interests is a common practice on the Pacific Coast. In this territory the farmers are financed to a considerable extent by terminal market buyers, mills, and other grain dealers. When such advances are made, it is quite customary to enter into contracts either

for the farmer's whole crop or else for a quantity sufficient to cover the advances. The contracts are generally made during the harvest season and usually to enable the farmer to pay the expenses of harvesting. They usually specify the price to be paid the farmer for his grain.

### *Conditioning*

Conditioning grain by country elevators is practically limited to the treatment of heated or heating grain that is wet or damp. Some conditioning can be done with the ordinary elevator machinery, which is frequently employed for this purpose when the occasion demands. Grain that is heated, or heating, can be run from bin to bin; this aerating is of considerable effectiveness in cooling grain.

### *Cleaning*

Prior to the institution of any Federal grades, there was probably not as much inducement for cleaning grain in the country as there is today, for the reason that dockage did not usually affect the grade as it does under the Federal system. About 50% of those reporting to the Federal Trade Commission in regard to this matter are equipped for cleaning grain.

### *Handling Country Elevator Shipments—Ordering Cars*

Some time prior to shipping, the agent orders a car of the required capacity from the local railroad agent. A common occurrence at country points equipped with a number of elevators is dispute over the distribution of cars to the elevators. State and Federal laws and regulations now govern such distribution, and these laws have diminished greatly the discrimination in allotment formerly prevailing, although occasional cases of unfair distribution occur today.

### *Plugged or Set-Up Cars*

Occasionally, unscrupulous country shippers attempt to defraud grain buyers through the practice of "plugging" or "setting up" cars of grain, that is, by deliberately distributing dirt, screenings, or very poor grain in a car of good grain, not throughout the load but in such a manner as to avoid its detection, if possible, and create the impression that the entire car is filled with good grain.

### *Advice of Shipment*

When the loading of the car has been completed, the bill of lading and a notice or advice of shipment is prepared. The bill of lading is



sometimes made out by the railroad agent, although this properly should be done by the elevator agent. Usually these bills of lading are order bills and are negotiable upon indorsement.

### *Sources of Price Information*

As the bulk of the grain bought by the country elevators is shipped to the terminal market and sold at prices prevailing there, country prices are ordinarily based upon the terminal market prices for the corresponding kind and grade of grain. The country elevators are informed as to terminal market price changes from a wide variety of sources through the medium of the mails, the telephone, and telegraph. Practically all the large daily newspapers in the grain territory supply price quotations—the opening and closing and sometimes high and low of the market. Through the mails there come to the elevators these daily newspapers with their market news sections, circular letters, grain trade publications of various kinds, commission men's circulars, price cards, and the like. These media in many instances furnish market information other than prices, including demand and supply conditions, daily receipts, car supply, and other trade gossip. The telephone and telegraph, of course, offer quicker service than the mails. This is especially important if the country elevators are situated so far from the market that price information sent through the mails cannot reach them in time for use in making the next day's purchases.

The price offered the farmer is usually the price being paid in the terminal market for grain of a like grade, less the amount of freight and the gross profit, the latter including operating and other expenses, such as insurance, taxes, and so on, and the buyer's net profit. To illustrate: if the Minneapolis price for No. 1 northern wheat is \$1.20 a bushel, the freight to Minneapolis from a country point 14 cents a bushel, and the gross profit which the buyer of that grain in the country desired to obtain, 6 cents a bushel, he will bid \$1 a bushel for that grade of grain, that is, \$1.20, the terminal market price, less 14 cents freight and 6 cents gross profit.

Because of local competitive conditions, gross margins frequently fail to show a net profit. In fact, at times the competition in the country may be of such a character as to compel the buyer so to narrow his margin by advancing the price that the difference between the country price and that at the terminal market will be insufficient to pay the freight.



TERMINAL GRAIN MARKETING<sup>4</sup>*Consignment Business*

Grain comes into the primary markets either by shipment on consignment to a commission house to be disposed of for a commission, or by direct purchase from the country shipper. By the first method, the grain is usually sold by sample on the floor of an exchange, after it has been officially inspected and graded. By the second method, which comprises various conditions of contract, the grain is sold prior to delivery, and the operations of sampling, inspecting, and weighing take place when the grain is delivered. Frequently the **commission houses** handle direct transactions in addition to their consignment business. The consignment business holds a prominent place in the cash trading of all the larger primary markets and in the older of these markets has been carried on for a long period of time.

*The Commission Merchant*

The commission merchant may be defined as one who acts as a selling agent of the shipper and who does not take title to the grain shipped, although frequently securing a direct lien through advances made against it. Incidental to the receiving business, the commission man or receiver frequently undertakes other functions connected with the marketing of grain for country shippers. Thus, the commission man may finance in part or almost entirely the operations of the country elevators. He may buy and sell futures to cover hedging accounts of his country elevator customers. In some cases, particularly in the Northwest, he may supervise the account of the country elevator in much the same fashion that the head office of a line elevator company supervises the operations of its country stations. As a rule, this is done only in those cases where the commission house is financing the elevator. The commission house may also supply country shippers with market information, assist in procuring cars for shipment, and arrange for the cleaning and conditioning of grain in terminal houses when desirable. In all cases the commission man is expected to protect the interests of the consignor with reference to the inspection, weighing, and grading of the grain at the terminal market, and to call for reinspection when the same appears to be desirable.

In the cash grain commission business, three competitive factors

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<sup>4</sup> From the *Report of the Federal Trade Commission on the Grain Trade*, Vol. III, "Terminal Grain Marketing," December 21, 1921.

appear to be of special importance: (1) The employment of traveling solicitors to canvass the country elevators; (2) the advance of funds on open account to country shippers; and (3) the use of private wire systems, which were developed primarily for handling business in futures.

### *Solicitors*

The primary business of the commission house solicitor is to procure the business of country elevators and other country shippers. In the Northwest, this solicitation is largely based upon offers to finance, and a commission house that is liberal in the amount and terms of its financing is very likely to procure the business. For a number of reasons, the financing of country shippers has become in a high degree a function of the commission houses in a great part of the territory tributary to Minneapolis and Duluth.

### *Purchasing Direct*

Direct purchases of grain may be made on the basis of "net, your station," that is, f.o.b. cars country station track, or "delivered at the terminal market." In the former case, the buying is commonly known as "on track" purchasing, and in the latter case as "to arrive" purchasing. These direct purchases are more often on a grade than on a sample basis, though in some cases samples are used. Such transactions most often originate from the terminal market, though they may originate in the country. During exchange hours, direct bids are sometimes made to country points by wire for immediate acceptance. After exchange hours, it is customary for many firms at the primary markets to send out overnight bids, usually on postal cards, for acceptance before the opening of the exchange on the next business day. Private wire systems out of Chicago are employed for making direct bids at all times. At several markets the practice of "bidding the country" after exchange hours has been sufficiently extensive to lead to the adoption of rules for its regulation, particularly in connection with maintenance of uniform rates of commission and the uniform commission rule. Grain both "on track" and "to arrive" is usually bought to be shipped or to arrive within a specified period of time. The most conspicuous effect of the direct marketing of grain is the increase in cash trading off the exchange floor, which naturally tends to narrow the trading on the floor.

## TERMINAL ELEVATOR FACILITIES

*Ownership and Control*

The specific services performed by a terminal elevator company are: (1) the storage of grain in the elevator bins or tanks; (2) the transferring of grain from one car, barge, or vessel to another, either directly or by transferring to the elevator storage tanks and subsequently loading out; (3) cleaning and conditioning, which processes involve screening, cooling heated grain, drying wet grain, smutting, bleaching, and the like; and (4) mixing.

A survey of the elevator facilities for handling bulk grain shows the aggregate storage capacity of commercial elevators (not including mill storage) at the more important terminal points to be above 260,000,000 bushels. Fully 80% of this capacity is operated by private dealers in grain. Nearly half of the total capacity is included in privately operated houses, not licensed nor operated as public warehouses. Over 30% of the total is operated under state license, but largely for account of the operators. Possibly 20% of the total is operated on a public utility basis; this includes all the houses operated by railroads, public agencies, and public warehousemen not dealing in grain. From a commercial standpoint, therefore, the aggregate elevator capacity controlled by private dealers includes the bulk of storage in elevators licensed as public warehouses by the states. This is true of most of the licensed public elevators at Minneapolis, Chicago, and Kansas City, and is in marked contrast to the situation in Canada. Except perhaps at seaboard points, it appears to be generally true that terminal elevator companies can obtain a higher rate of profit by combining merchandising with storage and other functions, and that therein lies in part the reason for the situation existing in the United States.

*Leasing*

Grain elevators at terminal points have always been largely owned by the railroads as a part of their terminal facilities. Today, approximately 35% of the commercial terminal elevator capacity of the country is owned by railroads. At interior terminal points most of these railroad-owned elevators are leased to private dealers. At the seaboard points the railroads, on the other hand, own about 69% of the total storage capacity and in most instances retain operating control.

*Public Elevators*

Several of the principal grain producing states, in the exercise of their



police power, have passed laws declaring that the elevation and storage of grain under certain conditions is a business so affected with a public interest as to require license and regulation. One of the primary purposes of the state regulation of elevators and warehouses is to secure the validity and negotiability of warehouse receipts. The warehouse laws of the grain states invariably include certain provisions with reference to the form and substance of such receipts, the manner of issuing and canceling them, and the conditions demanded of the warehousemen.

Public warehousing for a long time has been on the decline. This is especially true in the case of forwarding markets such as Chicago and Duluth. Various causes have been assigned for this decline. It has been attributed partly to the fact that the entrance of the public elevator proprietors into the grain business has made it impossible for a grain dealer to store in the public elevator in competition with merchandisers who either have no storage to pay except to themselves or have low costs for such storage due to favorable leases of elevator property.

#### *Regular Elevators*

At those markets where members of the exchanges conduct trading in futures, the exchanges declare certain houses to be "regular" for the storage and delivery of grain on future contracts. Grain in such houses is registered and subjected to inspection by exchange officials.

#### *Merchandising and Shipping*

The public or private terminal elevator companies operating as grain dealers are the largest merchandisers and distributors in the trade. Several of the larger elevator companies combine with merchandising and warehousing a cash and future commission business and the operation of country elevators. A considerable part of terminal elevator merchandising in certain markets is for local delivery, but the elevators as a class are predominately shippers. The wheat flour millers at Minneapolis and the corn millers at Indianapolis furnish perhaps the most conspicuous examples of local absorption of elevator stocks. Certain elevator companies specialize in selling to flour millers, in some instances on a type sample basis.

#### *Mixing*

Practically every private terminal elevator company engaged in merchandising makes a practice of mixing, cleaning, and conditioning, either



to secure screenings, to improve the quality of the grain, or to take advantage of the latitude within the requirements of each standard grade by mixing to the bottom level of such requirements. Different grades are frequently mixed also in railroad operated elevators under the supervision of local inspection departments, with a view to releasing additional bin space.

### STANDARDIZATION

#### *Classes of Wheat*

Under the Official Wheat Standards of the United States, wheat is separated into six commercial classes, as follows: (1) Hard Red Spring, (2) Durum, (3) Hard Red Winter, (4) Soft Red Winter, (5) Common White, and (6) White Club. If wheat of one class has more than 10% of another mixed with it, the mixture is classed "Mixed Wheat." Four classes, Hard Red Spring, Durum, Hard Red Winter, and Common White, are divided into subclasses on the basis of color and texture of kernels. Each of the first three classes named has three subclasses, while Common White has two subclasses. Subclasses are recognized because, so far as these classes are concerned, the best outward index of quality, from the standpoint of utilization of flour made therefrom, is the color and texture of the kernels, that is, whether dark, hard and vitreous, or yellow, mottled, and starchy.

#### *Grades<sup>5</sup>*

Each subclass of wheat is divided into five numerical grades (1, 2, 3, 4, and 5), dependent upon the following factors: Test weight per bushel, moisture content, percentage of damaged kernels, purity, cleanliness, and condition. Wheat failing to meet the specifications for any one of the five numerical grades is graded "Sample Grade."<sup>6</sup>

#### *Inspection*

Wheat, after leaving the farm, in finding its way through channels of interstate commerce to distant mills and to seaboard cities for export, is inspected and graded at terminal markets in accordance with the official wheat standards of the United States. There were 92 such in-

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<sup>5</sup> From "Wheat Production and Marketing," United States Department of Agriculture, *Yearbook*, 1921.

<sup>6</sup> EDITOR'S NOTE: There is a pronounced recent tendency toward the selling of wheat on the basis of protein content. Since the protein content is so significant in the baking qualities of the wheat, premiums have long been paid for superior protein content. There has recently arisen, in the central wheat markets, the practice of more carefully determining protein content and making it a basis for wheat prices.

spection points in 1917, 118 in 1918, 143 in 1919, 158 in 1920, and 167 in 1921. The inspectors at terminal markets are not employees of the Government, but are employed by state grain-inspection departments, chambers of commerce, and boards of trade, or in some cases they operate independently on a fee basis. These inspectors, however, are licensed by the United States Department of Agriculture, and use the Federal standards.

The three main considerations<sup>7</sup> in arriving at the grade of wheat are: The quality of the grain, its condition, and the admixtures. The quality depends upon soundness, color, weight, and the percentage of hard grain. The condition depends upon the moisture content, the heat, smut, and so on. The admixtures are tested by a process of sieving and weighing, by which the dockage is determined. Much the same factors are considered in grading other grains.

On such a basis it is manifestly impossible to determine the grade of grain scientifically by the old "car-door inspection" with poor light and inadequate apparatus. The laboratory method of inspection provides orderly work in a well-lighted room with scientific equipment. This method has been highly developed in Minneapolis and Chicago with substantially the same methods in use.

### *Inspection Before Arrival*

State inspection, notably in Minnesota, does not confine its activities to the terminal market. In order to expedite inspection and relieve congestion in railroad terminals, the Minnesota Railroad and Warehouse Commission has established sampling stations at various interior points.

### *The Inspection Tracks*

The samples of grain are procured from newly arrived cars on the "inspection tracks"—special tracks provided for the purpose by the railroads in the larger markets. The samplers work in crews under a yard foreman in the large yards. The foreman received the car waybills or receivers' notices from the railroad and assigns the cars to individual samplers, whom he holds accountable. Each grain car is tagged by the railroad employees showing its contents. The work begins in the morning, as soon as the crew can see to work. On arrival of a train, the conductor leaves the car bills in the railroad company's yard office. A list of these bills is made, showing the car number, name of shipper, the

<sup>7</sup> From R. H. Brown, *Dockage under the Federal Wheat Grades*, United States Department of Agriculture, Farmers' Bulletin No. 1118.

shipping station, and consignee. From such lists the yard sampling foreman with his crew works the cars. A record of the seal is made when the car is opened.

### *The Sampling Operation*

Under Minnesota practice, before entering the car the sampler records on an inspection ticket the car number, the initials, the date of sampling, and the name of the sampler. This ticket is kept until the sample is taken and is placed in the sample sack with the grain taken.

The sample is drawn by means of a brass or steel probe about 60 inches long. In Minneapolis, the implement used is composed of two tubes, one within the other, each part having seven, sometimes ten, equidistant slots approximately  $\frac{3}{4}$  inches wide by  $3\frac{1}{2}$  inches long through which the grain at various depths may enter the probe. By revolving the inner tube, the holes of the probe are tightly closed before insertion and are opened again after the tube has been plunged into position. Employees are instructed to probe the cars in at least five places—more if there is reason to believe that a car has been “plugged.”

### *Weighing*

Wheat is weighed by state and exchange officials for two purposes: (1) At the inspection laboratory, as a factor in determining the grade and dockage; (2) at the receiving elevator or on track scales, to check the quantity of the shipment. The latter function is that of the official weighing departments in the terminal markets. No Federal supervision exists with reference to weighing.

Grain is officially weighed either on a track scale while in the car or in a hopper scale in the cupola of an elevator. Scale experts differ as to the comparative merits of track and hopper scales. The limitations of yard space frequently prohibit track weighing, and the tendency in the trade is toward a greater use of the hopper scale. It is reported that out of 72 weighing stations supervised at Minneapolis, 45 have both hopper and track scales and 19 use track scales only.

### *Future Quotations*

Prior to the war, quotations of grain futures were published regularly by five markets on the following grains:

Chicago .....	Wheat, corn, oats
Minneapolis .....	Wheat, oats
Kansas City .....	Wheat, corn, oats
Duluth .....	Wheat
St. Louis .....	Wheat, corn, oats



Chicago is the leading grain futures market of the world and has published future quotations (under varying delivery systems) for wheat, corn, and oats each business day since 1877. The future quotation service at Chicago is, then, of controlling importance in the trade. It must be remembered that prices of futures do not represent the value of actual grain at the date of sale, but rather the estimates of traders as to what the grain will be worth in some specified future delivery month.

### *Methods of Collecting Quotations*

Future quotations are usually collected by an exchange agency in the compliance with the contracts with telegraph companies. In Chicago the quotations are collected and distributed (under supervision of the Board of Trade) by the Cleveland Telegraph Company, which operates a local ticker service.

## FUTURE TRADING OPERATIONS IN GRAIN<sup>8</sup>

The "future contract" is not a contract of sale but an agreement to sell at a future time on specified or understood terms applying to a prospective actual sale. An actual sale may or may not occur as a result of the future transaction. Reference to transactions in future as "sales" and "purchases," however, is in accordance with trade usage and scarcely avoidable, despite its inaccuracy from a legal viewpoint. Payments made at the time of giving an order or of the execution of a future contract are not part payments toward the purchase price but are merely deposits made to secure the rights of each of the contracting or interested parties. Such "margins" are deposited by the seller as well as by the buyer.

<sup>8</sup> From *Report of the Federal Trade Commission on the Grain Trade*, Vol. V, "Future Trading Operations in Grain," September 15, 1920.

EDITOR'S NOTE: Futures markets are in operation in some of the grain centers. The Chicago Board of Trade is the most important market in this line. The Minneapolis Chamber of Commerce and the Kansas City Grain Exchange are other important institutions in this country, as is Liverpool in England.

Grain is not sold in the futures market. This is rather a speculative market in which price and price trends are the significant futures under consideration rather than the exchange of actual grain. On account of the relationship to grain prices, futures markets are usually conducted in connection with cash grain markets.

A very great deal of the trading on these markets is by speculators who might be termed gamblers, who expect to make a profit by estimating the future trend of grain prices more accurately than the other speculators with whom they trade. It is contended by many men interested in the futures market that this large volume of trading by competent, experienced, and informed speculators provides a most satisfactory system of forecasting the future trend in wheat prices and of interpreting probable future conditions into present cash prices through the year.



It should be noted that settlement and cancellation of future contracts prior to the time of delivery is essential to the serviceability of the most important of the business uses of the future contract, namely, "hedging." Affording an opportunity for hedging—which is a device to enable a merchant or manufacturer to avoid certain commercial risks—is the principal economic service of future trading. For example, an elevator company on buying a thousand bushels of actual grain, sells a contract for a thousand bushels of futures against this cash purchase, expecting to buy in this quantity of futures at the time the actual grain is sold. Any marked change in market or other conditions will affect the prices of actual or cash grain and of contracts for the future delivery of grain substantially alike. If, therefore, the price of the actual grain purchased declines 10 cents between the time of its purchase and the time of its sale by the elevator company, the price of futures will presumably also have declined about 10 cents. As the elevator company when it bought the actual grain also sold a future contract, the company is thus enabled to buy in the same quantity of futures for 10 cents less than it paid for them, thus compensating itself for its 10-cent loss upon the actual grain and leaving it with only its ordinary merchandising margin. Similarly, only the merchandising margin of profit is left if prices go up, though the cash grain be sold for much more than the ordinary excess above the price paid for it.

Considerable effort has been made by the Federal Trade Commission to determine the quantity of future trading in grain in the United States. The quantity of future trading in grain varies considerably from year to year, but for some years has been above 20,000,000,000 bushels. About five-sixths of this trading is done on the Chicago Board of Trade.

A prerequisite to the development of future trading as above described is homogeneity in the commodity dealt in, such that commercial units are interchangeable. A further requisite is the durability, or minimum degree of perishability, of the commodity, which in effect permits a physical exchange from present to future. Included in this second requisite is ample provision of storage facilities at terminal markets.

A grain exchange may or may not have a futures market. Even where the rules provide for such trading, there may actually be no such market. An interest in cash grain does not of necessity involve an interest in futures; hence the existence of an important cash grain market does not involve the development of future trading on a scale that constitutes a serviceable market. Speculative dealings, furthermore, are not

dependent upon contact with the grain or upon the product of any particular locality; hence they tend to be concentrated upon the best markets instead of being decentralized and located at the natural outlet of a grain growing territory. Important primary markets for cash grain may develop no future trading. Any future trades in the way of hedges that may be needed can be executed on a central market, distance as such not (at least in theory) constituting any difficulty.

### *The Pit and Its Use*

The facilities for dealing in futures are in general the same as those used for cash grain dealings. The pit, however, is distinctly a future trading facility. The pit is so called from the fact that, in order to facilitate the exchange of signs as well as of oral communications, steps rising upward from the center are built around a small octagonal or circular space. The number of steps varies with the size of the pit and may be as many as six. By this means the traders can see one another better and tell what is going on throughout the pit. The importance of signs as a means of transacting business—though this does not mean that the pit is dumb or noiseless—makes some such an arrangement necessary. To the outsider, the language of the pit is practically unintelligible. This partly is due to the amount of noise from shouting orders and acceptances, but it is also due to the large extent to which an unfamiliar sign language is used. Certain gestures have as definite a significance in the pit as have the words which may accompany them, but which may not be heard because of the noise and confusion. In Chicago, there are four pits on the main, or trading, floor of the Board of Trade Building. These are for wheat, corn, oats, and provisions.

### *Hours of Trading*

The hours of future trading on the Chicago Board of Trade are from 9:30 o'clock to 1:15, except on Saturday, when the hours are from 9:30 to 12. Privileges are traded in after the close of the regular future trading, from 1:30 to 2:30.

### *Classes of Traders in the Pits at Chicago*

Theoretically, any member of the Board of Trade may execute a future trade in the pit. Actually, pit trading is a specialized occupation. The men who spend their time in the pit are of several classes. Some of them work on a salary, especially those who represent the wire houses, executing orders telephoned to the trading floor from the office of the wire house. Such pit traders usually trade also on their own account

to a greater or less extent, depending somewhat upon the degree to which they are kept occupied with orders from their employers. Besides these pit traders on salary, there are pit brokers, who make an occupation of pit trading for others. The brokerage charged is \$0.75 per 5,000 lot, either bought or sold. Prior to 1918, it was 50 cents per lot.

The largest of the Chicago pits will comfortably accommodate 150 traders. The number of men in the pits for trading purposes at one time may go above 300.

#### *Rules for Trading in Futures—Contract Grades*

The grades of grain which shall be valid tender on future contracts are selected necessarily from those varieties under the Federal Grain Standards Act which are dealt in on the particular exchange. For example, the Chicago Board of Trade lists certain No. 1 and No. 2 varieties of wheat, corn, and oats which are deliverable at contract price in 1,000 or 5,000 bushel lots. There are also listed other varieties which may be delivered at a premium over, or discount under, the contract price.

#### *Options*

The future contract includes an option as to time of delivery within the specified delivery month. Under present practices, deliveries on futures are at "seller's option." That is, the buyer must accept the warehouse receipt and pay for it under circumstances prescribed by the exchange on any business day within the delivery month that the seller may choose for tender.

Futures were formerly generally referred to as "options." It is convenient to use the term in the looser sense as a collective name for future trades relating to a specified grain and delivery month, referring, for example, to prices for the "May wheat option" of a given year.

In a strict sense, the option contracts dealt in on the grain exchanges are the "puts and calls," or "bids and offers," or "privileges," all these being different names for the same thing.

#### *Privileges; Bids and Offers; Puts and Calls*

Privileges are option contracts in the strict legal sense of the term, whereby the purchaser may, at his choice within a specified period, "exercise" the option of entering into a future contract with the seller of such privilege contract at the price named therein. A privilege binding the opposite party to sell the future is at Chicago called a "bid," and one which thus conditionally binds him to buy the future is an



"offer." The buyer of the privilege becomes the seller of the future in the first case and the buyer of the future in the second. Bids are also known as "puts" and offers as "calls." Privileges are also referred to at Chicago as "indemnities," but this term properly relates to a slightly different type of contract, now obsolete.

### *Hedges*

The practice of protecting a cash purchase by selling a future (to be bought in upon the sale of the actual grain) or vice versa, so as to insure the trader against loss from changes in the market price level, is called hedging. Hedging supposes a nearly parallel movement in cash and future prices. Since the hedging purchases or sale of a future is entered into for protection only, it is, in the majority of cases, closed by a contra transaction in the pit rather than by delivery and payment.

Hedging purchases are made by flour millers to protect their contracts for delivery of flour at a specified price. That is, the miller hedges a sale of flour against a rise in the price of wheat by an immediate purchase of wheat in the future market, closing out the trade in future wheat after the flour contract has been satisfied.

### *Contract Grades*

The standard grades of grain deliverable on future contracts in specific satisfaction thereof under the exchange rules are the contract grades. The grade is ordinarily not designated in a future contract. The term "deliverable grades" includes these and also any grades that may be delivered on future contracts at a premium, discount, or otherwise.

### *Margin*

A margin is a cash deposit made generally to secure other parties at interest in a future trade against losses due to possible or actual changes in the price above or below that at which the future trade was originally made. Each commission house interested in a future trade may be required to deposit a margin for the protection of the other. Likewise, the customer may be required to deposit a margin for the protection of the commission house acting as his agent.

### *Clearing House*

The central agency for facilitating the making of settlements on future contracts entered into between members of a grain exchange is known as a clearing house. The form of organization and methods of



the clearing house differ, especially as between Chicago and other exchanges.

On future contracts, delivery takes on a special form, regular warehouse receipts usually being delivered on or before the last business day of the delivery month during certain hours. Default on delivery usually calls for liquidation of damages on the basis of the difference between the contract and the market value, frequently requiring a referee or committee of arbitration to determine such "true market value."

### *Bucket Shops*

The essential points in the definitions of "bucket shops" found in state law and grain trade usage are these:

1. The concern in question follows the form of acting as a commission house buying or selling grain and securities on "margin," using exchange quotations as a basis.
2. The customer deposits a "margin" to protect the operator and also pays him "commissions" for "executing deals."
3. At least on the part of the operator, there is no intention of actual future delivery of the commodity and no purchase or sale is actually made on exchange. Frequently the customer understands also that the "sales" are wholly fictitious, that is, without contemplation of delivery.

## MIDDLEMEN'S PROFITS AND MARGINS<sup>9</sup>

### *Spreads Between Producers and Consumers of Grain*

The financial results of country and terminal elevators, together with data as to freight rates, and the like, were used to estimate the total spreads between the producer on the one hand and the converter, exporter, retail feed dealer, and so on, on the other.

An estimate was made of these average spreads for wheat, corn, and oats for the period 1912-13 to 1916-17 and for the year 1919-20. For the period 1912-13 to 1916-17, the total estimated average spread between the producer, on the one hand, and the converter-exporter-feed dealer, on the other hand, was 24.71 cents a bushel on oats. These total estimated spreads were divided about evenly between the transportation companies and the middlemen handling the grain. Thus, the middlemen average 13.63 cents a bushel on wheat as compared with 11.08 cents for transportation companies, 7.98 cents on corn as compared with

<sup>9</sup> From *Report of the Federal Trade Commission on the Grain Trade*, Vol. IV, September 26, 1923.

9.24 cents, and 7.81 cents on oats as compared with 6.57 cents. In 1919-20, there was a sharp advance in the wheat spread to 33.20 cents a bushel. Most of the increase was due to an advance of over 5 cents in the middlemen's spread to 18.89 cents, but the transportation cost increased more than 3 cents. There was, however, practically no change in the corn spread. A decline in the middlemen's spread to 4.33 cents on corn offset an increase in transportation charges of something over 4 cents. The total oats spread advanced from 14.38 cents to 17.14 cents a bushel. Practically all of this was due to increased cost of transportation, there being no increase worth noting in the middlemen's spread.

In the five-year period, 1912-13 to 1916-17, the country elevator spreads on wheat, corn, and oats were respectively 6.05, 3.33, and 3.03 cents a bushel, as compared with terminal middlemen's spreads of 7.58 on wheat, 4.75 on corn, and 4.78 on oats. In 1919-20, the situation was reversed, and the country elevator spreads of 11.93 cents on wheat, 4.84 cents on corn, and 5.23 cents on oats were higher than the respective spreads of the terminal middlemen, who had a gross profit on wheat of 6.96 cents a bushel, a loss on corn of half a cent a bushel, and a profit on oats of 2.69 cents a bushel.

#### *Transportation and Middlemen's Spreads*

For the period 1912-13 to 1916-17, the total spread between the producer and converter, exporter, and others, averaged 24.71 cents on wheat, 17.22 cents on corn, and 14.38 cents on oats. In 1919-20, the wheat spread averaged 33.20 cents, and the oats spread 17.14 cents, while the corn spread of 17.80 cents was about the same as in the earlier period. For the period 1912-13 to 1916-17, the average transportation cost of wheat per bushel constituted 11.08 cents of this spread, as compared with an average spread (gross profits per bushel, disregarding hedge gains and losses) of 13.63 cents obtained by the country and terminal grain middlemen. In the same period the average transportation cost of corn was 9.24 cents a bushel, as compared with a 7.98 cents average spread for the middlemen, and the transportation cost of oats was 6.57, as compared with 7.81 cents for middlemen.

In 1919-20, the transportation of a bushel of wheat cost on the average, 14.31 cents as compared with the spread of 18.89 cents for middlemen; a bushel of corn carried a transportation cost of 13.47 cents as compared with 4.33 cents spread for middlemen, and on a bushel of oats the transportation companies secured 9.22 cents as against 7.92 cents for middlemen.

PRICE CONTROL IN THE WHEAT MARKET<sup>10</sup>

(1) The Food Control Act of August 10, 1917, among other things, authorized the President to fix a reasonable guaranteed price for wheat whenever he should find that an emergency existed "requiring stimulation of the production of wheat." This guaranteed price was specifically intended for the benefit of the "producers of wheat" within the United States, and was to be determined and publicly announced "seasonably and as far in advance of seeding time as practicable." At the time of the passage of this act, the wheat price at the principal primary markets of the country was nearer \$3 a bushel than \$2. The thorny task of determining a fair price was entrusted to a commission, appointed by the President, of eleven men, fairly representative of all interests in the community. After prolonged consideration, this Fair Price Commission, six of whom represented the farming interests, recommended for the crop of 1917 a price of \$2.20 a bushel, basis No. 1 Northern Spring wheat at Chicago.

The Grain Corporation was made the sole agency for all Government buying and at once entered into a series of voluntary agreements with flour mills and country elevators to maintain the Government fair price basis in their own purchases throughout the crop year 1917-18. These buyers of wheat—including some 3,000 mills and 14,000 elevators—agreed to pay for wheat of the 1917 crop the Government fair price, less freight to terminals and handling charges, and no more, so that the farmers everywhere should receive the fair reflection of the Government buying basis.

(2) The United States Grain Corporation was organized in August, 1917, with \$150,000,000 capital stock, all belonging to the United States Government. The purpose of the corporation was to control food, as authorized in the Food Administration Act. Mr. Hoover, the food administrator, believed that prices could be stabilized and distribution accomplished by ordinary commercial methods and not alone by edict. So the Grain Corporation became the commercial agency which handled the export trade in all grains and grain products. The War Trade Board placed an embargo on other grain shipments except those through the corporation, thus concentrating in it our export trade in those products. The corporation also entered into a contract with

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<sup>10</sup> (1) From W. Eldred, "The Grain Corporation and the Guaranteed Wheat Price," *Quarterly Journal of Economics*, August, 1920; (2) from "The United States Grain Corporation" (editorial), *Outlook*, March 24, 1920.



the War and Navy departments to supply their needs in wheat flours, and the magnitude of its purchases made an effective monopoly in the flour market. By refusing to pay more than the price of the President's Fair Price Commission, wheat and flour prices were stabilized.

#### RECENT TRENDS IN THE COOPERATIVE MARKETING OF GRAIN<sup>11</sup>

Cooperative technique applied to the marketing of grain has met with both success and failure. In Western Canada, first in the operation of cooperative line elevator systems, and more recently in large-scale pooling, cooperation has met with salient success. In the United States, cooperative grain marketing on a national scale has not been a success, and actual accomplishment is limited to cooperative country elevators and relatively small regional pooling organizations.

Cooperative marketing became of national importance with the crisis of 1920-21. There was an impression abroad that the grain trade was not what it should be and that new methods were necessary in the marketing of grain. A national marketing convention was held in Chicago to consider the situation. A "Committee of Seventeen" was appointed to draft a plan to improve grain marketing methods. After six months of investigation, the committee reported a plan to a ratification convention, which finally approved the organization of the United States Grain Growers, Inc. Throughout the discussions the pooling issue became acute. A large body of opinion was in favor of compulsory pooling of grain by all members, but this was outvoted in the committee and in the convention. The new plan contained provision for optional pooling only, which was not satisfactory to the advocates of pooling methods. The controversy did not end with the formation of the association but was carried into the directorate, with damaging results.

##### *The United States Grain Growers, Inc.*

In brief, the plan called for the creation of a non-stock, non-profit association to market the members' grain at cost, earnings to be returned to the producer members on a patronage basis. The directorate of the association was divided on the pooling question, and this caused dissension. After two years of struggle, unfortunate leadership, weird finance, lack of general support on the part of farmers, and inability to

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<sup>11</sup> By Clive B. Davidson, University of Chicago, 1927.



bring the association to the stage where it could handle grain, the United States Grain Growers, Inc., lapsed.

### *The Grain Marketing Company*

The second plan of national importance came with the organization of the Grain Marketing Company. During the summer of 1924, a plan was advanced whereby four important grain trade interests agreed to merge and sell to the farmers. The farmers were to own and control the organization, while the merging firms were to provide facilities, working capital for the first year's operations, and their entire personnel. The Grain Marketing Company started operations in August, 1924, and in the following eleven months handled a large volume of grain. Owing to the failure of the farm leaders to sell stock and owing to internal difficulties, the Grain Marketing Company failed to meet its fixed obligations on July 15, 1925, and ceased to do business. Unlike its predecessor, the Grain Marketing Company did accomplish something. It handled a large volume of grain, it had extensive facilities, and had an experienced and expert personnel. The company was vigorously opposed by certain farm organizations, largely on the grounds that they doubted the motives of the grain companies concerned, that the properties were overvaluated, and that the plan was not truly co-operative inasmuch as the actual producers of grain had nothing to say in the organization of the company.

### *The National Farmers' Elevator Grain Company, Co-operative*

This company was incorporated on May 1, 1925. Ninety-two farmers' elevators of Illinois and Iowa subscribed \$25,000 stock prior to incorporation. The company represented a movement among farmers' elevators to enter the terminal markets with a cooperative sales agency. A subsidiary, the Rural Grain Company, was organized to operate on the Chicago Board of Trade. The plan, in brief, called for cooperative terminal sales agencies owned and controlled by farmers' cooperative elevators. It was hoped to accomplish in the terminal markets results similar to those accomplished in the local market by cooperative elevators. Thus far (1927), the plans of this organization have not materialized to the point where they can start operations.

### *Regional Associations*

Throughout grain producing regions of the United States, attempts have been made to organize cooperatives on a state-wide or regional

basis, to sell grain for their members. In 1923 there were thirteen associations operating in as many states; altogether, they handled some 25 million bushels. In 1925 there were ten associations operating in as many states, handling 27 million bushels. In 1926, associations operated in the following states (in order of number of members): Indiana, North Dakota, Oklahoma, Montana, Minnesota, Kansas, Colorado, Texas, South Dakota, and Nebraska. The rate of mortality among grain marketing associations has been high in the last five years, but that form of organization still persists, especially in the intensive wheat growing regions.

### *Western Canada*

Cooperative grain marketing in Western Canada commenced with the development of two important cooperative line elevator systems, the United Grain Growers, Ltd., operating in Manitoba and Alberta, and the Saskatchewan Cooperative Elevator Company. Each organization acquired extensive equipment in the form of country elevators, terminals, as well as other facilities. The Saskatchewan Cooperative Elevator Company operated some 450 country elevators in 1925. The organizations were based upon centralized control with provision for local advice. They have rendered valuable service in handling large volumes of grain and in stimulating and setting standards for competition in buying and handling grain.

In 1924 the farmers of the three prairie provinces organized separate provincial wheat pools coordinated through a central selling agency. In each pool, members must sign a five-year irrevocable contract, which has been held legal and enforceable by the courts. Control remains with the members and is exercised through elected delegates meeting in convention. Directors are elected annually.

The importance and effectiveness of the pools are indicated by the volume of grain handled. In 1925-26, the pools received 52% of total wheat deliveries, or 187 million bushels. The Saskatchewan Pool, the largest of the three, reports 79% of acreage under contract for 1926-27. Handling facilities, such as country elevators and terminals, are operated by subsidiary organizations and on a non-profit basis. The Saskatchewan Pool has purchased outright the properties and equipment of the Saskatchewan Cooperative Elevator Company.

Coarse-grain pools have been organized in much the same manner as the wheat pools. They were organized to unify the methods of marketing and to insure volume for country elevators and terminals. Although

pooling is still young in Western Canada, several important results are noticed:

1. The control of large volumes of grain permits of economies in handling and selling. Pools in the United States have not had volume adequate for economical handling.
2. The growers have more confidence in and control over their industry. Friendly interests handle the crop at all stages of the marketing process. The pools have established export connections, and a considerable volume of grain is marketed independently of organized exchanges, which are utilized in so far as they are advantageous.
3. The product is marketed throughout the year, and the members receive an average price less marketing costs. An initial payment is made on delivery and the balance in several installments extending over the crop year. The risks of the market are carried collectively.
4. The pooling system has tended to stabilize the economic life of the community. Commercial interests have adjusted themselves to the new method of financing the grain farmer, with improved relations throughout.
5. Up to the present time, management of the pools has been efficient, and members have been loyal to their organizations. These two factors promise well for the future.

### EXPORTING OF WHEAT FROM PACIFIC NORTHWEST<sup>12</sup>

#### *Concentration of Exporting*

The wheat export business of the Pacific Northwest is concentrated in a relatively few firms. There are three leading wheat and three leading flour exporting concerns. The three wheat firms are Balfour, Guthrie and Company, Kerr, Gifford and Company, and Strauss and Company. The flour milling concerns are the Sperry Mills, the Centennial Milling Company, and the Fisher Flouring Mills. There are several other smaller concerns, both grain and milling, which do some exporting, and also a few brokers representing small interior firms which handle some exports of wheat and flour. However, the broker is more typical of the lumber trade than of the grain and flour trade. In addition to the firms mentioned above, there are branches of two Japanese importing companies that buy grain and flour for their home offices. These are Mitsui and Company, and Suzuki and Company, and are buyers of lumber and general merchandise as well as of wheat.

<sup>12</sup> John B. Watkins, *The Development of the Export Market for Wheat and Flour of the Pacific Northwest*, Thesis, University of Chicago, 1927.



*Wheat Exporting to Europe*

In Europe, inquiries usually originate with the buyer, though in some instances the seller offers a cargo at a specified price. The distinguishing feature is that one calls for shipment within a brief period of time and the other for shipment at a future date, perhaps several months in advance. The future contracts are the dominant contracts during the summer months, before the new crop comes in.

The standard of quality used as a basis of sale is nominally United States Federal grades. Formerly the so-called Portland and Seattle Standards were used. Actually, most of the grain is sold on sample. As the boat is being loaded, samples are taken and then sent by mail to the buyer. These samples are used by the buyer in his sales of the cargo before it arrives.

*Unit of Sale*

The unit of sale to Europe is now the English quarter (480 pounds) for the United Kingdom and the long ton to the Continent.

THE MARKETING OF WHEAT IN FOREIGN COUNTRIES<sup>13</sup>

The characteristic feature of the wheat movement in the United States consists in concentrating the surplus for export. Only a few of the larger exporting countries resemble the United States in this respect. In the non-exporting and in the importing countries, the main problem is the distribution of the wheat among the population. In this case, the entire machinery of marketing and transportation must be modified and adapted to the conditions peculiar to each country. In exporting countries, the wheat is bought by buyers who are either established at the local centers, or who travel through the country purchasing grain from farm to farm. It is only the larger grain centers of Europe which employ the economical American system of elevators in handling grain.

*Russia*

In Russia, as is usual in foreign wheat producing countries, the machinery for buying, handling, and transporting wheat is very imperfect. Where transportation facilities are adequate, their use is expensive. On long distances, railroad rates have been higher than in the United States. They have been estimated at 3% of the cost of production. Russia is well supplied with rivers, and a decade ago the larger pro-

<sup>13</sup> From Peter Tracy Dondlinger, *The Book of Wheat*, Orange Judd Publishing Company, 1908.



portion of export grain was still moved by river and canal. The railways have now become a more important means of transportation than the rivers and other water routes, and they will doubtless be the great factor in the future development of the country. The construction of the Trans-Siberian Railroad has been considered as the initial step in the opening of extensive grain fields. This railway is about 6,600 miles long in its direct line. Earth was broken for its construction in 1891. The road has been completed, but "what this country can do in the way of wheat production is yet to be demonstrated." On account of high freights, wheat cannot be shipped to the frontier by rail, and the surplus of Western Siberia is carried by boat down the Irtysh and up the Tura to Tiumen, from which place it is forwarded by rail to Russia. Some is also shipped east and west on the Trans-Siberian Railroad.

In Russia, grain was formerly handled in sacks. There were no elevators at the country stations, and the grain was much damaged from exposure to the elements. The same state of affairs existed at the seaports, where the grain was further damaged. Here an attempt was made to classify the grain according to its quality, but there was no machinery for cleaning it. Screenings were bought from the farmers and again mixed with the wheat. Various other extraneous matters were also introduced, such as manure, sand, and a species of grass, *kukal*. The latter was in such demand at times as to bring a higher price at Odessa than rye. In 1888 the first warehouse with elevators was erected in Russia, and it did not pay expenses. Subsequently the Russian government assisted in erecting grain elevators on the American plan. These were mainly along the lines of the southern railway and at Odessa and other southern ports. In 1895 there were 55 warehouses with elevators, having a capacity of about 8,905,000 bushels, and 221 warehouses without elevators, having a capacity of about 9,082,000 bushels. In 1898 over 50% of the Russian wheat contained 2% of foreign matter, and some of it contained as high as 12%. No attempt at grading and inspecting the wheat has thus far been successful. It is mostly sold on sample in Great Britain, and there are frequent complaints of fraud. Some fruitless efforts have been made to get Russian wheat sold on a 5% extraneous matter basis, a plan recently adopted in Roumania. Experience in other countries has shown that if such efforts were successful, the most important result would be the transportation of that much more rubbish from Russia to England.

*India*

An immense stimulus was given to wheat cultivation in India by the development of transportation facilities. The first of these was the completion of the Suez Canal in 1869. This, however, reached its greatest importance only after some railroads were built into the wheat districts. In the eighties, the movement of wheat was still greatly hampered, not only by high railroad rates, but by the entire lack of railroads in many of the best wheat districts. The situation had not greatly improved in 1898, when there were few branches to the railroads, the country roads were poor, and freights were high. The traveler still saw the long lines of camels that were silently and majestically treading their way through the night across the plains to the seaports, in successful competition with the railroads as grain carriers. After threshing, the grain is left lying on the ground, or it is buried in pits. In the latter case, it suffers less from destructive insects than if placed in granaries. Cartmen haul it to market. Ninety per cent of them do not haul their own grain but engage in a speculative business of buying and selling. In the eighties, there was much fraud practiced by these cartmen in handling wheat. Dirt was mixed freely with the grain. The ingenuity and resourcefulness of the cartmen seems almost incredible. In 1889 McDougall wrote: "There are 10 or 11 villages in which the lower classes make it a trade to supply different colored earths to suit the color and size of the different kinds of grain. The earth is worked into small grains to look like grain, and the traders say it is impossible to winnow out this description of dirt. . . . Water, again, is put in to increase the weight. All these practices are resorted to by the conveying traders in self-protection against the tricks of traders, who rob them in various ways. A poor quality of wheat was also mixed with a good one, and then the whole was given a uniform color by mixing with clay. Firms engaged openly in selling this clay. As a result of all these manipulations, the wheat did not arrive at the foreign market in as prime condition as might have been wished. It could not be shipped to Germany, and the English buyer deducted 5% "refraction." The Indian exporter soon learned to exercise care lest any wheat containing less than 5% dirt should be shipped to England. He was sometimes forced to mix 2% to 3% of foreign matter with the wheat in order not to sustain a loss. This caused an economic loss, not only in annually transporting 15,000 to 20,000 tons of trash to England, but the English miller was obliged to devise machinery to clean this wheat. These evils were partially remedied in the nineties. In 1898, 15 grades

of wheat were shipped to England from India. In good years, the storage capacity of Bombay is exhausted by the wheat brought from the central provinces of India. The wheat of the Punjab is collected at Multan and shipped from Karachi. Considerable wheat flour is ground and exported at Bombay and other centers.

### *Argentina*

The Argentine wheat grower has no granaries on his farm, and consequently his entire crop is marketed as soon after harvest as possible. Lack of improved facilities and methods are a source of great loss. The grain is handled in bags, which are very expensive and which are of such poor quality that there is quite a loss from leakage. The country roads are very poor. The wheat is hauled in immense two- or four-wheeled wagons having wheels 8 feet in diameter. The two-wheelers are hauled by 12 to 15 horses or mules, or by 8 to 16 bullocks. One animal is fastened between the huge thills, and the others are hooked on by means of ropes tied to any portion of the cart to which a rope can be fastened. The yoke of the oxen is fastened to their horns, and the driver's seat is on the yoke between the heads of the two oxen. The four-wheelers carry from 4 to 6 tons and require more animals to draw them. The hauling is not generally done by the producers of wheat but by men who make a business of hauling. The grain is hauled from 15 to 60 miles. Corrugated iron warehouses had been built at some of the principal wheat stations, but they are used only by the large producers and dealers. As a rule, warehouses are not available for the small farmer, nor would he store his grain if they were. He is so ignorant that he prefers to pile his wheat outdoors exposed to the weather. Such grain is often damaged by rains, and these conditions prevail at the farm, at the railway station, and at the seaport. Sometimes the piles of sacks are covered, and this greatly reduces the damage.

Transportation to the seaports is almost exclusively by rail. Of the 26 Argentine railways in operation in 1903, 22 were built mainly in order to transport wheat. The Parana is navigable to Rosario, the only large inland city. From this point at least 5 railroads branch out into the wheat regions. The car facilities are inadequate to ship the wheat, and the bags often lie in the yards two months awaiting shipment. The grain is frequently shipped in open flat cars covered with canvas, but it sometimes gets wet before it is unloaded. The railways are all English, and consequently most of the cars are of the old Eng-



lish type. They have a capacity of from 10 to 18 tons, but the many new cars being built have a capacity of from 30 to 40 tons. The freight rates vary from 5 to 15 cents a bushel. They fell about 3 cents a bushel from 1890 to 1902. There are portions of Argentina where wheat cannot be raised for export merely because transportation facilities are lacking.

Although shipping facilities at the seaports are growing rapidly, they are still entirely inadequate. Ships wait for days before they can be loaded. Then, berthed three deep in the port, it takes several days more to load, especially when men carry the bags of wheat one at a time. Two other methods of loading are also in use. Steam winches lift the bags, or an endless belt carries them. Tramp steamers of 2,500 to 6,000 tons register usually do the ocean transportation. The rate to Europe in 1903 was from 6 to 12 cents a bushel. The grain exporters keep branch establishments at the main points where wheat is raised. They buy through an agent. A price is telegraphed to him in the morning, and this he pays all day, as he rides from farm to farm. He often buys from the machine, for the exporter gets his wheat on board ship as soon as possible. Each buyer does his own inspecting and grading. The agent is paid 1% commission on all he buys.

### *Canada*

In the marketing of wheat, as in nearly all other phases of the wheat industry, the development in Canada has been similar to that in the United States, only later. More than half the arable lands of Canada cannot be utilized yet because the requisite population and means of transportation are wanting. Some of these lands are among the best wheat lands in the world. The railroads however, are rapidly ramifying through these regions. New transcontinental lines are being planned and built. As transportation facilities improve and population increases, the development of Canada will be unprecedented. Elevator building is at present very active in the Canadian Northwest, both along the new lines of road and along the old lines. As far as the wheat trade is concerned, Winnipeg is the Chicago and Montreal the New York of Canada. The most noteworthy difference between Canada and the United States in connection with the marketing of wheat is in grading. Grading is entirely under the control of the Dominion government, which appoints the grain inspectors in the different markets. Uniform grades are fixed by law for the whole country.



## VI

### CORN

CORN, like wheat, is a reasonably dry cereal, and the marketing organization for it in the central market is essentially the same as that for wheat. A description of this market organization will not be repeated. There are, however, some characteristics in which the marketing of corn differs from the marketing of wheat. In the first place, corn is a product largely used on the farm for feeding live stock instead of being sold to mills, although the latter use is made of a small portion of the crop. In the second place, the corn market is more disorganized than the market for wheat, and the price variation between different territories is much more significant.

#### THE MARKETING OF CORN<sup>1</sup>

(1) Corn is a bulky commodity at its best, and anything that can be done to concentrate its value into the smallest possible volume furthers the efficiency of marketing. Corn is subject to deterioration more than any other grain product, and herein lies one of the great problems in its efficient marketing. The market is wide in scope, including the feeder of live stock for market, feed for work animals, distillers and manufacturers of by-products, and uses for human consumption. The importance and value of the corn crop may be seen most readily by referring to the following table:

#### LEADING CROPS, 1921

Corn .....	3,100,000,000 Bu.	\$1,600,000,000
Wheat .....	750,000,000 Bu.	800,000,000
Cotton .....	8,000,000 Bales	700,000,000

Eighty to eighty-five per cent of the entire production is consumed locally, while only 1½ to 2% is exported, leaving approximately 17% for the domestic market. Even though in our internal commerce less than one-fifth of the corn produced enters the channels of trade, the

<sup>1</sup> (1) From a paper by Parker M. Holmes; (2) from "The Corn Crop," United States Department of Agriculture, *Yearbook*, 1921.

total volume and value is so great that the domestic market is of especial interest and significance in the marketing of corn. Small quantities are delivered direct to mills and other converters of the product, but the amount disposed of in this manner is negligible in considering the market as a whole. By far the greater amount is consumed by the individual producer without ever leaving the farm. However, the hog or cattle feeder often finds it necessary to buy more corn than he himself can produce and he is then a convenient market for the neighbor who has a surplus on hand.

In case, because of lack of experience with stock, lack of available capital, or for other reasons, the farmer decides to rely on the methods available for marketing his corn direct, he finds at least four distinct means at his disposal. These are: "(1) By outright sale either to the country house or other local buyer; (2) by sale after storage in the local elevator or warehouse either to the house or others; (3) by sale on contract before actual delivery, or (4) by sale on his own account in the terminal market."<sup>2</sup> The third and fourth methods are little resorted to. Only in exceptional cases and under adverse conditions does the sale of corn take place before actual delivery, and the farmer is in no position to sell on his own account in the terminal market. For these reasons there has arisen the local grain elevator to which the farmer sells outright or after storage. The farmer, feeling helpless to dispose of his grain in any other manner, hauls it to the local elevator, takes the elevator weight and grade, and accepts the price the elevator offers. Under these conditions, where a comparative monopoly exists, the farmer finds himself practically at the mercy of the elevator company. That unfair advantage has been taken of the farmer under these conditions has been proved, but here again the many competitive factors tend to give the farmer a fair price for his product.

Thus far we have discussed only the local marketing facilities and the farmer organization plans which have been outgrowths of the lack of efficient marketing methods as pertaining to the farm producer. It will be well now to consider those channels of distribution which are beyond the control of the individual farmer but of vital importance in the marketing scheme. The number of middlemen through whom corn must pass in reaching the ultimate consumer varies from one to a great number. The local elevator may resell to farmers or other local consumers, or may ship direct to mills, in any one of which cases the

<sup>2</sup> *Report of the Federal Trade Commission on the Grain Trade*, Vol. I, "Country Grain Marketing," 1920.

elevator is the only middleman handling the grain. From the comparatively simple transactions that are here involved, the marketing machinery evolves into a complicated network of brokers, commission houses, dealers, speculators, boards of trade, discount houses, and export firms.

(2) The movement from the farm is largest during the winter, more than one-half of the sales taking place during the four months, November, December, January, and February. For the remainder of the year, the monthly movement is fairly uniform, although slightly larger in the spring than in summer. For any one year the relative monthly marketings of corn may deviate considerably from the averages given.

### EXPORTS OF CORN<sup>3</sup>

(1) Corn does not enter into international trade to such an extent as wheat. Chicago is probably the most important corn market in the world. In the same sense that it may be said that the price of wheat is determined in Liverpool, the price of corn may be said to be determined in Chicago.

(2) Because of the fact that corn deteriorates rapidly from heating in storage or transportation, certain difficulties arise in this way in shipping it to foreign countries. American shippers have quite generally refused to export on any contract other than "that an official certificate of inspection be final as to quality." This has done much to limit the export demand, as corn is sometimes passed through as representing a better grade than it actually has; even where the certificate of inspection is truly representative of the shipment, deterioration from transit conditions or from the condition of the corn when shipped may result in its arriving in a bad condition or below grade. The greater portion of the corn dealt in is Number 2, because of the presumably greater risks from deterioration in the lower grades. "Information to the effect that the corn is in poor condition or that one or more cargoes have arrived in Europe in a damaged condition has been known to cause a considerable apprehension among the importers, resulting in sufficiently reduced bids to cover the presumably greater risk in purchasing and in some cases of avoidance for long periods . . . of purchases of corn from the United States." There is a market in Europe for better classes and grades of corn in good condition at higher prices. In fact,

<sup>3</sup> (1) From United States Department of Agriculture, *Yearbook*, 1921; (2) from a paper by Parker M. Holmes, "The Marketing of Corn"; (3) from U. S. D. A. *Yearbook*, 1921.



American dent corn is preferred to the corn from most of the other corn exporting countries.

The United States and Argentina lead on practically an equal basis, but the exports from Argentina comprise about 56% of her production while that of the United States is less than 5%.

(3) Most of the corn exported by Argentina goes to Europe, where it comes into competition with corn from the United States. Reports received from special investigators of our Government indicate that Argentine corn is preferred and is purchased instead of American corn, at least in several countries of Europe. The reasons assigned for this preference in France and Belgium are: (1) The kernels are smaller, making it better adapted to poultry feeding; (2) it is sweeter and so is preferred as horse feed; and, (3) it contains 3% to 4% less moisture, so will ship and keep in good condition longer. Price seems to have nothing to do with the preference for the South American product, for at present Argentine corn sells for 8 to 10 cents a bushel more than American corn. In addition, there are probably merchandising features that enter into the situation.

#### DISORGANIZATION OF CORN PRICES<sup>4</sup>

(1) It may be said that there is no one price for corn. The reasons for these fluctuations and variations can be determined to some extent. The cost of marketing may be said to be the determining factor in regulating price. The costs of marketing involve many subfactors of varying importance, among which are found the expense incurred in hauling from the farm to the local elevator, freight, commission for selling, storage, inspection, weighing, interest on capital, profits of various dealers, and insurance. The freight or transportation charges constitute the one single item of greatest expense and in the long run seem to determine quite largely the difference in price between any two markets.

In addition to the factor of deterioration in affecting the price of corn, ordinary shrinkage is a factor to be considered in holding corn in storage. In experiments conducted in central Illinois for a period of nine years, the average shrinkage was found to be 16.61% from time of harvest to the following August.

Eighty-five per cent of the corn production is consumed in the county

<sup>4</sup> (1) From Parker M. Holmes, "The Marketing of Corn"; (2) from United States Department of Agriculture, *Yearbook*, 1921; (3) from Parker M. Holmes, *op. cit.*



where grown. This fact in itself is a great regulator and stabilizer of the market price of corn. When the price of corn begins to rise, the marginal grain and stock farmer tends to dispose of his stock and sell his corn on the market direct. Vice versa, the marginal grain farmer will, when the price of corn falls, tend to buy stock and feed his corn.

The market price of corn is determined in the primary market and varies in each one of these markets in accordance with supply and demand, together with a complexity of minor factors which may, from one cause or another, individually assume relatively greater degrees of importance. Analysis of extreme sectional differences in prices paid to farmers discloses zones of uniformly high or low prices between which prices graduate.

(2) In general, any area in which the price of corn is higher than in the market to which it is tributary or from which it must draw its supplies is an area of deficiency and not of surplus. In such areas the price of corn is on the basis of market price plus freight, while in the surplus producing area it is based on market price minus freight.

(3) The lowest price is found in the surplus producing states ranging from western Ohio across the Corn Belt through the greater part of Nebraska, the minimum price being in the northwestern part of this section within an irregular square formed by adjacent portions of Iowa, Nebraska, South Dakota, and Minnesota. This particular region is found to be at the greatest expense in reaching foreign and domestic markets. The maximum price levels are found in the arid Southwest, and very high price levels occur on the seacoasts. These striking differences in price levels seem to be directly attributable to differences in transportation costs. However, we find relatively local differences which are more difficult to understand because of a complexity of factors involved. For instance, in Missouri the difference in price levels between regions is sometimes greater than the normal cost of shipping from St. Louis to some European markets. The area between the Ohio and Mississippi rivers has cheap water transportation and a strategic position at the head of the Great Lakes, together with nearness to corn-deficiency states. These advantages give this division the most favorable market conditions.

Corn prices are usually lowest at harvest time, when marketings are heaviest. From the low point, generally in December, they rise gradually during the following year until a new crop begins to come on the market, then decline rather sharply to the minimum again. The marketing cycle is influenced by the time of harvest.

## VII

### OATS, BARLEY, RYE, ETC.<sup>1</sup>

#### OATS

THE oat crop is not so important commercially as wheat and corn. According to the census data, slightly less than a third of the national production of oats in 1919 was sold by farmers. Farm consumption apparently absorbed the remainder of the crop. Of the part sold by farmers, a larger proportion goes to terminal markets than in the case of corn, much of which is sold by one farmer to another for feeding and thus never reaches the terminals.

The United States Grain Standards Act requires oats offered for sale in interstate shipment to be inspected and graded by a licensed inspector in accordance with the official standards for oats. These standards divide oats into classes and grades which designate the kind, quality, and condition of the oats.

##### *Classes*

For commercial purposes, oats are separated on a color basis into four classes, namely, white, red, gray, and black oats. In this classification white oats include yellow oats.

##### *Grades and Grading*

All classes of oats are divided into four numerical grades (1, 2, 3, and 4), dependent upon the following factors: Condition and general appearance, test weight per bushel, sound oats, heat damage, wild oats, and mixtures of other classes of oats. Oats failing to meet the specifications for any one of the four numerical grades are graded "sample grade."

About 3% of the oat crop of the United States is milled for human consumption. This amounts, however, to many thousands of tons.

#### BARLEY

A decreasing proportion of the barley produced in the United States

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<sup>1</sup> From United States Department of Agriculture.

goes to market. For the central producing area, Minneapolis and Chicago are the principal central markets.

Grades have been in use at certain markets for several years, but they were established by the states or by the exchanges, not by the Federal Government. The grades at the different markets vary in their requirements and therefore are not fully comparable one with another.

The barley coming to these markets is almost wholly of the Manchuria type, from the states of the upper Mississippi Valley, except in years of short crop in that area, when barley is received from more western states.

Most of the barley in the Chicago and Minneapolis market falls in grades 3 or 4. On those markets grade 3 allows a bushel weight as low as 44 pounds, a weed seed and dirt content as high as 3% or 4%, and a maximum of 7% of other grains, which may include 4% or 5% of wild oats.

Milwaukee has been considered by some as the leading barley market, because of the important brewing trade at that point. This trade has been discontinued by prohibition legislation. The city still maintains some importance in the export barley trade, but the greater quantity of the exported product goes out through Chicago and Duluth. There has been an increase in the export trade on account of prohibition legislation. In fact, the barley trade has become almost entirely an export trade.

## RYE

Most of the rye produced in the United States, except that used for seed, is sold as grain, only a small part of the crop being fed to live stock on the farms. In recent years the larger part of the crop has been exported.

The principal interior rye markets are Duluth, Minneapolis, and Chicago; the principal exports markets are New York, Baltimore, Philadelphia, and Galveston. Most of the rye milling is done in Minnesota and Wisconsin, the mills in these states grinding more than half of the rye milled in 1919.

Grades for rye have not been fixed and established by the United States Department of Agriculture, although grades have been recommended and may be put into effect at some future time. Rye has been graded, therefore, in the different markets in accordance with the grades locally in effect. The requirements of these grades have been different

in different states or in different markets. It is not possible, for this reason, to compare accurately the quality of rye reaching the several markets.

The moisture content of rye is important in relation to keeping quality, as rye will become musty and go out of condition readily if the moisture content is too high. Foreign material also is important.

The rye market had a little stimulus during the war, when a considerable quantity of the product was exported to Europe for use in food stuffs. This temporary expansion of production resulted in an overproduction of rye, which has been piling up in terminal elevators since that time and which has been absorbed very slowly by the trade.

### RICE

Rice, like the other small grains, is sown with a grain drill, cut with a self-binder, and thrashed with a grain separator. It is thrashed from the shocks and put in burlap sacks at the separator. The sacks used in the prairie rice districts of the South hold approximately 200 pounds of paddy or rough rice, while those used in California hold about 100 pounds.

Thrashed rice still is inclosed in the hull, or chaff. It is known as paddy or rough rice, and in this condition is sold to the rice mills, either through a cooperative selling association or to buyers representing the mills.

Most of the mills are located in the centers of rice production, but some of them are outside of the rice area. In the mills, rice is prepared for the market by removing the hulls and the bran and by polishing the kernels, which sometimes also are coated with glucose and talc. The unbroken kernels of milled or cleaned rice are known as head rice. This always commands the highest price.

The marketing of milled or cleaned rice is greatly facilitated at present by the grades proposed in 1920 but not yet established under the United States Grain Standards Act. These grades are known as extra fancy, fancy, choice, medium, and sample grade, and are applied to each of three types of rice grown in the United States, namely, long, short, and round kernels. They are based mainly on color and on percentage of whole kernels (head rice), foreign material, and moisture. The milled, cleaned, or table rice gets into the general trade through brokers and jobbers.



*International Trade in Rice*

The greater part of the world's exports of rice are supplied by French Indo-China, British India, and Siam. Burma, the chief rice producing Province of India, and Siam supply Europe and the Western Hemisphere with rice of special qualities. Much of the highly milled and polished rice that is produced in the European mills is obtained from these countries. Siam and Indo-China furnish very largely the cheap rice that is needed to feed the native population of the greater part of the Orient, except India.

The principal nonproducing country which imports rice is Great Britain. A group of countries which in prewar years had lower import requirements includes France, Holland, Germany, Russia, and Cuba. Among the principal rice producing countries, exclusive of China, the Dutch East Indies ranks first in the imports of rice. Japan, ranking second in production, also imports large quantities of rice to feed a population having the largest per capita consumption of rice in the world.<sup>2</sup>

## GRAIN SORGHUMS

The grain sorghums are grown primarily for feed grains and fodders for farm use. Estimates show that only about 25% of the crop moves off the farms where grown. Not all of this reaches the terminal markets, as much of that sold off the farm is consumed locally. The main terminal markets for the grain sorghums are Kansas City to the north, St. Louis and Memphis to the east, Fort Worth and Galveston to the south, and Los Angeles to the west of the main producing area. The Kansas City market is the largest handler of the grain sorghums.

The chief commercial uses of sorghum grain are similar to those of corn, and sorghum must compete with that grain. This means that sorghum grain moving north and east into corn producing territory must be either cheaper or better than corn for the purpose desired. If cheaper, it must be sufficiently cheaper to pay for the longer haul and to overcome the handicap of lower feeding value, which is about 80% to 90% of that of corn. Occasionally this condition occurs. Under these conditions also, some sorghum grain may be used in the manufacture of industrial alcohol. For poultry feeds, the grain of various

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<sup>2</sup> EDITOR'S NOTE: An interesting recent development in the rice market is the present production of an exportable surplus of rice in the United States. This is largely due to increased production in Louisiana, Arkansas, and in the Sacramento Valley of California. A part of this surplus is at present exported to the Orient.

sorghums is more suitable than corn in size. A considerable portion of the commercial movement both east and west is for this purpose. In the Far West, however, little corn is produced, and some of the western commercial movement of grain sorghums doubtless is for use in stock feeding.

### *Classes*

Under the United States Grain Standards Act, classes and grades have been established for grain sorghums. The nine commercial classes are as follows: (1) Kafir, (2) milo, (3) durra, (4) feterita, (5) darso, (6) freed sorgo, (7) brown kaoliang, (8) shrock kafir, and (9) shallu. Any class containing more than 10% of another is designated "mixed grain sorghum." Only the first four of the nine classes are important, as production of the other five is very limited. Kafir and milo comprise more than 90% of the total sorghum grain graded at the principal markets. Three classes, kafir, milo, and durra, are divided into two subclasses on the basis of color of kernels. These grades are not enforced under the Grain Standards Act, but they have been adopted by all important markets and used during the last crop year.

### *Quality*

Because of the very dry conditions under which this grain is produced, the seeds crack easily in thrashing. Unless this cracked material is screened or fanned out, there is danger that the grain will heat when binned on the farm or in elevators and mills. The small size of the kernels allows them to pack tightly together. When they are mixed with the still finer cracked material they form an almost airtight mass which heats readily. More than ordinary care must be taken to ventilate storage bins or to move the grain at intervals.

### *Grade*

Grade depends upon quality at time of inspection. Each class or subclass is divided into four grades, Nos. 1, 2, 3, and 4, with a "sample grade" for grain failing to meet the specifications of any of the numbered grades. Sufficient data are not available to show the percentage of sorghum grain in interstate movement which falls into each of these grades.

## FLAXSEED

Flaxseed grown in the United States is marketed at local elevators in the same way as wheat or other small grains. In many localities of

small production, however, a comparatively small volume of seed is marketed. Because the price often fluctuates widely, flaxseed usually is bought on a wider margin than is wheat, and the grower often does not receive the full value of his crop. This condition could be improved if several growers of flaxseed in such localities would combine their deliveries and thus market a carload or more at one time.

### *Classes*

At the present time there are three recognized commercial classes of flaxseed: (1) Northwestern-grown seed, (2) southwestern-grown seed, and (3) foreign seed. Northwestern-grown seed is that portion of the domestic crop grown almost entirely in five states, namely, North Dakota, South Dakota, Minnesota, Montana, and a small portion of northern Iowa. It comprises nearly 95% of our domestic production. This class includes also the seed imported from Canada. This is produced just across the line from North Dakota and Montana and is comparable in quality to our production. The southwestern seed constitutes only about 5% of our crop and is grown in Missouri, Kansas, Nebraska, and eastern Wyoming. It is inferior to the northwestern-grown seed.

Foreign seed is that imported from South America, Manchuria, and India. The greater proportion of the seed imported into the United States comes from Argentina, a small quantity from Canada, already discussed under the northwestern-grown class, and sometimes a still smaller quantity from Manchuria and Siberia. Only occasionally does any seed arrive from India.

### *Markets*

The principal markets for domestic flaxseed are, in order of their importance, Minneapolis, Duluth, Milwaukee, and Chicago for northwestern-grown seed, and Fredonia, Kansas, and Des Moines, Iowa, for the southwestern-grown seed. Much of the imported seed comes through the port of New York. It is not all crushed there, however, a considerable portion being shipped to Buffalo for crushing.

### *Crushing Centers*

The linseed crushing industry is widely distributed throughout the United States, though there are two principal centers of manufacture. The larger part of our domestic seed is consumed in linseed mills in Minneapolis, St. Paul, Chicago, Superior, and Milwaukee, though some seed is shipped to Toledo and Buffalo by way of the Great Lakes.

About half of our total linseed oil manufacture is located in New York City and Buffalo. These mills depend quite largely on imported seed for their raw material. The western mills have the advantage of being close to our domestic supply of flaxseed, while the eastern mills have the advantage of cheap ocean freight rates on flaxseed from Argentina and also on linseed cake, which is exported in large quantities to Europe.

### *Grades*

At the present time, six states and four boards of trade or chambers of commerce have special sets of grading rules for grading flaxseed. The grades vary in number from three to four. Apparently only one or two grades are of importance. About 75% of our domestic crop is marketed at Minneapolis and the remainder at Duluth, Milwaukee, and Chicago. Due to this fact, the rules of the Minnesota State Inspection Department are the ones most largely in use. Chicago and New York use the Minneapolis State Inspection Department classifications. All foreign seed imported into this country is graded by the Linseed Association of New York, an organization of buyers and sellers, who sample and grade all imported oil-bearing seeds.

### *Quality as Shown by Grade*

The quality and consequent grade of flaxseed are dependent on the weather conditions that prevail during the growing season and harvest and the condition under which flax is stored from time of harvest until it is marketed.

The principal products of flaxseed are linseed oil, for paints and manufacturing purposes, and linseed meal, used for feeding stock.



## VIII

### HAY

HAY is a very bulky product, and the high transportation cost prevents any very large percentage of it from entering the terminal markets. Most of the trade in hay is a local trade from neighbor to neighbor or a sectional trade from producing valleys to nearby feeding centers or cities.

There has been a decrease in the city trade in hay because of the replacement of many draft horses by motor trucks. But there has been some compensation for this reduction in the hay trade by an increase of alfalfa shipments into specialized milk producing regions, particularly about large cities, and to some extent into cattle feeding localities.

#### PRODUCTION AND MARKETING OF HAY<sup>1</sup>

##### *Kinds of Hay Crops and Producing Areas*

(1) The five most important hay crops in order of tonnage are: alfalfa, mixed clover and timothy, wild hay, timothy, and clover. The heavy producing areas for these crops are somewhat separate, and, due to the fact that it is a bulky product, sales are more or less limited to the section in which the hay is produced. The heavy producing areas for timothy and timothy and clover mixtures are centered in the north-eastern part of the United States, west to the South Dakota-Nebraska-Kansas line. In the Atlantic Coast states in particular, timothy is the chief commercial hay and is prized as roughage for horses. West of the timothy and clover area, in the states of North and South Dakota, Minnesota, Kansas, and Nebraska, wild hay (hay made from native grasses) is the most important, and much of this wild hay finds a ready sale on the large markets in this section. Alfalfa is also an important hay crop in parts of the wild hay area and in nearly all the states farther west and south, particularly in the irrigated sections.

<sup>1</sup> (1) From Alva H. Benton, *Marketing of Farm Products* (Chicago, A. W. Shaw Company, 1926); (2) from G. A. Collier, *Business Methods of Marketing Hay*, United States Department of Agriculture, Farmers' Bulletin No. 1265, May, 1922; (3) from Alva H. Benton, *op. cit.*

In spite of high freight charges, some alfalfa is shipped by rail from the western states to the eastern states, as it is highly valued as a feed for dairy cattle. Other shipments of alfalfa are being made from Pacific Coast states to the eastern markets via the Panama Canal.

(2) There are two important methods of marketing hay—the consignment method and the straight sales method. The consignment method consists in shipping to a broker or commission merchant, who will act as the shipper's representative in selling the hay in the markets in which he is located, usually at the price prevailing when the hay arrives. By the straight sales method the shipper sells the hay at a fixed price, either at point of shipment or at destination, for shipment or delivery at or within a specified time upon certain designated terms.

There are almost as many methods of selling hay as there are markets. The warehouse method consists of selling the hay at railroad or public warehouses after it has been unloaded from cars. The car door method is employed where hay is sold from the track in railroad yards. The sale is made, as the name indicates, at the car door and is based upon the quality of the hay as it appears at the doorway of the car. "Plug" sales are made in special railroad yards from a sample, or plug, consisting usually of 20 to 30 bales which have been removed from the car and piled on the ground or on a platform beside the car from which they were taken.

Profitable returns from consignments depend a great deal upon the ability and reliability of the shipper's representative at the market.

Where trade organizations or exchanges exist, membership in them, which requires certain desirable qualifications, is to some extent a guaranty of the members' reliability, but there are also many reliable men outside of such organizations who will render efficient service.

The producer or shipper who prefers not to consign his hay can usually sell it outright at some available market. There are also dealers in consuming sections or shippers and track buyers at convenient points in producing sections who are almost always in the market for hay at current market prices.

#### *Hay Sales Agencies*

(3) There are a number of agencies to which, or through which, hay for carload shipments is sold by country hay dealers or farmers who make carload shipments. Sales may be made either direct to consumers, wholesalers, and distributors, or to track buyers at country points, or they may be made by brokers, commission firms, or special traveling

salesmen, either on the terminal hay markets or direct to wholesalers and consumers. Brokers act only as sales agents for the shippers, while commission firms frequently have storage space and permit country shippers to draw upon them for a part of the value of the hay before it is sold.

### *Country Shippers' Sales Methods*

Country shippers sell hay in at least four rather distinct ways; namely, "shipper's track," "to arrive," "delivered," and "on consignment." These terms refer to the time of payment. When "shipper's track" sales are made, the country shipper is paid before the car leaves the country point, and the track buyer assumes full responsibility from the time of sale. With respect to hay, "to arrive" may refer to shipments which are in transit but unsold, or it may have the same meaning as in the grain trade and refer to sales made with delivery promised within a certain number of days. "Delivered" sales are most common in the hay trade; buyers contract to pay a certain price but do not assume any risk or make any payment until hay is delivered to them by the shipper. Much hay is also shipped "on consignment" to terminal markets, where it is sold on a competitive basis to the highest bidder, usually through a hay commission merchant. Under this arrangement the shipper does not know what he will receive until the hay is sold and selling charges are deducted by his agent.

### METHODS OF SELLING HAY ON TERMINAL MARKETS

A few cities, of which Indianapolis, Memphis, St. Paul, and Pittsburgh are representative, each have a hay exchange where hay is bought and sold under the regulations of an organized group of hay dealers. In some of these exchanges samples are shown by the wholesale receivers and commission merchants, but in others sales are made on the basis of grade and description only.

Track sales are made in a number of markets in the railroad yards either by the "car door" or the "plug" method. The cars are then sold by private sale on some markets, or by auction on other markets. In either of these track sale methods there is opportunity for unscrupulous shippers to place poorer grades of hay in the ends of the cars, and this causes buyers to ask for a guaranty of uniformity, or to bid lower than if they were certain of the quality. Shippers, on the other hand, complain that buyers often reject cars, alleging lack of uniformity when



there is no justification for the charge. This opportunity to reject cars is due to the fact that cash settlements are not usually required until the expiration of 24 to 48 hours after sales are made. In some of the eastern and southern cities where nearly all cars of hay which arrive are sold for local consumption, the railroads maintain hay warehouses. All hay is unloaded into these warehouses and the hay from each car is left in a separate pile. This plan facilitates inspection and makes warehouse sales practical regardless of weather conditions, but this method is not used where cars are reshipped to other market centers. Sales made outside of the regular trading hours or not according to any of the established methods are termed "office sales."

### *Federal Hay Grades*

Much of the friction and dissatisfaction in marketing hay has arisen from the absence of any generally recognized grades. Since one of the factors in determining grades of hay is color, it has been difficult to adopt standards that could be understood. Samples could not be prepared, such as are used for wool and cotton, as the color rapidly fades, but the United States Department of Agriculture has finally established standards and grades for timothy hay, clover hay, clover mixed hay, and grass mixed hay. Each class, except United States Choice timothy, has four grades: Number 1, Number 2, Number 3, and Sample Grade. Class refers to the kind or type of hay, while grade is an indication of quality. These grades are being accepted by the hay trade, and the Government has placed hay inspectors in various markets who will inspect cars of hay and issue Government inspection certificates.

### COOPERATIVE MARKETING OF HAY

The cooperative marketing of hay is not in evidence in much of the commercial hay area; however, there are several cooperative marketing organizations that handle a sufficient volume to merit attention.

The Northwest Hay Association, with headquarters at Yakima, in the state of Washington, has over 1,200 members in three counties of Washington and in one of Oregon. Growers sign five-year marketing agreements, and hay is handled in seasonal pools, with cash advances to growers. Some shipments are made by water via the Panama Canal to the Atlantic Coast and some of the surplus alfalfa is converted into



alfalfa meal. During the year ending June, 1925, more than 7,000 carloads of hay were handled by this association.

The Roosevelt Hay Growers organization of Phoenix, Arizona, is formed along lines similar to those of the Northwest Hay Association, and the marketing practices are of a similar nature. A mill and warehouse has been purchased to handle alfalfa seed, and a seed expert is kept in the field to act in an advisory capacity. In three years the membership has reached 300, and the volume of hay handled has increased from the equivalent of about 500 cars the first year to 2,500 cars the third year.

## IX

### COTTON

#### SALE OF COTTON LOCALLY<sup>1</sup>

##### *The Cotton Bale*

THREE general types of bales are used for packing cotton at the gin—the flat bale, the round bale, and the gin-compressed bale.

The flat bale which is in general use and the typical gin bale, is a loosely packed bale of about 33 by 48 by 54 inches in dimensions and weighs approximately 500 pounds, with an average density of about 11 pounds per cubic foot. Hardly any bale, however, will be found to be of exactly this weight. Some will run a little over and some a little under, and in certain parts of the belt bales customarily run considerably over this weight, in other sections less. It is bound with steel bands called cotton ties.

##### *The Local Storekeeper*

Cotton farmers and planters may either dispose of their cotton locally or ship it to one of the larger spot markets for sale.

If the cotton is disposed of locally, it is usually sold outright to a local storekeeper, local interior buyer, or direct buyer from one of the larger shippers; if shipped to the spot market before sale by the producer, it is usually handled on a commission basis by a factor or commission house and sold either on a to-arrive or spot basis. The small planter or farmer is likely to sell to either the local storekeeper or interior buyer. The larger planters, on the other hand, seldom sell to either of these classes of purchasers, but more usually dispose of their cotton to the direct buyers employed by the larger spot merchants or sell on a commission basis at the spot markets. A considerable proportion of the cotton crop, however, is bought by local storekeepers. This situation is in part the result of credit conditions, which frequently render the small planter and tenant farmer more or less dependent upon local general merchants for financial assistance.

A large proportion of the small planters and farmers of the South

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<sup>1</sup> From *The Cotton Trade*, Federal Trade Commission Document No. 100, 1924.

are unable to finance themselves through the growing season. They are compelled to borrow, and frequently this borrowing takes the form of an open or charge account with the local storekeeper, whereby the latter supplies the planter's wants during the growing season. Tenant farmers are frequently thus carried for long periods by the local store. As a means of liquidating these accounts and also in order to induce custom, the local storekeeper enters the business of purchasing cotton, receiving it in liquidation of the account and crediting the debtor grower with the price paid. Thus the storekeeper becomes the first middleman for a considerable proportion of the cotton crop. The local storekeeper may also buy cotton for cash, either from parties or from others, as a possible source of profit.

### *Interior Cotton Buyers*

The term "interior cotton buyer" has been used to designate local people who engage in purchasing cotton on their own account or for others, in competition with other buyers. As a rule, they operate on a small capital and undertake to make a profit by buying the farmer's crop in competition with other buyers and selling to larger dealers or through factors. In some cases these buyers are termed scalpers. In Texas they are known as f.o.b. buyers, from the fact that they act as concentrating agents, buying at various local points in lots of from one to ten bales and selling f.o.b. compress points in lots of comparatively uniform quality.

The interior buyers keep close watch of the trade situation in cotton and the character and condition of the cotton as it is being picked. With this information as a basis, they make their offering prices for the cotton as it runs. Often they buy directly from the gins and in some instances the ginners themselves are cotton buyers.

Neither the local storekeeper nor interior buyer purchases much cotton from the large planters. These producers, as a rule, obtain their funds from banks, factors, and in some cases, perhaps, from cotton merchants. There is not, therefore, in their case the motive for selling to local storekeepers that frequently exists in the case of the small farmers or planters. So far as the local interior buyer is concerned, the larger planters often have cotton in such volume that this class of local purchaser is scarcely equipped to handle it, owing to his restricted capital or otherwise. Such purchases as are made by the local storekeepers and interior buyers, therefore, are chiefly from the smaller planters or farmers, the larger planters selling principally to the road

buyers of the larger merchants and shippers in so far as they market their cotton locally, rather than at spot markets. Both local interior buyers and local storekeepers sell cotton to road buyers. Neither of the former, nor planters, nor farmers, sell or ship, as a rule, to mills, partly because they are not in touch with them, and partly because they do not have the cotton in even-running bales suitable for the mill's requirements. An exception to this rule is local cotton in the immediate vicinity of the mill, several of the southern mills buying or offering to buy practically all the cotton hauled into the town where the mill is located.

#### *Direct or Road Buyers*

Local sales are also made by producers to buying agents, or road buyers, who are employed by the large cotton merchants in buying cotton directly in the producing territory. These buyers work either on a salary or commission basis. They are constantly on the watch for anyone offering cotton for sale in the section where they are located and endeavor to trade to the best advantage for their principals.

They purchase largely, however, from sellers who own or have purchased a considerable quantity of cotton, so that the road buyer can take it up in lots of, say, 100 to 1,000 bales. Their purchases, therefore, are chiefly from the larger planters, or else from local stores or interior buyers, who may have accumulated 200 or 300 bales or more in local warehouses. In sundry cases, however, purchases are made in much smaller lots, even at times in single bales, if cotton is wanted.

The road buyer usually offers what is called in certain sections a "hog round" price, that is, a flat price for the entire lot of cotton, even though it may be of the most widely varying grades and staples.

The road buyer goes through each lot of cotton and samples it. He may sample every bale of it and still not buy it, since he may offer a price which the merchant refuses. He also reports to his concern the quantity of the cotton purchased, with his classification of it.

Road buyers are sent out through the cotton country by numerous concerns, and as a result the trade obtains a very good idea as to how much cotton there is available in the various districts. When a buyer for any prominent cotton merchant goes into a certain district, every merchant and scalper and large planter there will know it as soon as he arrives. He may offer a price that takes the cotton of that district; if he does, the news will go out that the organization employing him has bought up a certain quantity in that territory. By



combining these reports and estimates, the large buyers obtain very close approximations of the quantities of cotton bought by various concerns.

The buyers from the large spot merchants are furnished by the head office with limits or a basis, that is, the number of points on or off which are to be applied to the futures price of the hedge month prevailing at the time the cotton is purchased. The limits are generally sent out once a day, but are changed whenever conditions warrant, which may be several times a day. Buyers are also furnished with a list of differences on and off middling to be added to or subtracted from the basis in buying cotton of grades other than middling. These differences, in contrast to the limits or basis, do not change very often.

### *The Concentration of Cotton*

The cotton accumulated locally by interior buyers, local storekeepers, and also to a lesser extent, perhaps, by road buyers, may be of considerable variety, either in grade or staple, or both. In consequence, much of this cotton is concentrated at what are known as concentration points. The concentration of cotton, from an economic standpoint, is principally in order to bring together lots of cotton of different grades and staples so that they can be classed out and divided into lots of even-running quality. The chief disadvantage of the concentration of cotton is the extra expenses entailed by warehouse and handling charges. If it is possible to class cotton out at point of origin and put it under a through bill of lading to point of destination, expenses are saved, because there are no terminal or other charges in making delivery to points of destination. As a result, the tendency of the modern cotton business is in this direction.

At certain interior points where they have good warehouses, and particularly compressing facilities, it is sometimes advantageous to concentrate cotton from the smaller points where such warehouse and compressing facilities do not exist. Cotton at these points is put into even-running lots and again, if possible, put under through bills of lading to point of destination.

Nearly all interior points have more or less satisfactory warehouse facilities, their chief disadvantage, as compared to the larger markets, being the higher cost of handling, particularly the higher insurance rates and also higher rates of interest if the cotton is carried by the interior banks. Most large handlers find it advantageous, therefore, to get cotton away from the smaller interior points and concentrate

it at the larger interior points, or, if possible, at ports where better and cheaper facilities are available, insurance rates are lower, and financing can be done more easily and at lower rates of interest. The large New Orleans cotton handlers, for example, will concentrate at various important points in the interior, such as Shreveport, Monroe, Alexandria, or any location where the charges and freight rates make it favorable for them to do so.

### FINANCING THE COTTON PRODUCERS

#### *Factorage Financing*

Originally, the term "cotton factor" appears to have been applied to a house which sold cotton on commission for planters and others under an agreement whereby the factor loaned money to the planter or other borrower in advance of and during the growing season, on condition that the latter should ship a certain quantity of cotton to him for sale. This system of financing, however, has been steadily declining, and more recently the term "cotton factor" has been applied to any concern that receives cotton for sale on commission. As summed up by one man closely connected with the New Orleans Exchange and the cotton trade of that city: "The factor is always a commission broker, and usually a credit institution. Formerly, the factor was more of a credit institution than at the present time. He extended credit, not only to the merchants but also to the planters."

#### *Decline of Financing*

The decline in factorage financing may be attributed directly to the development of better banking facilities and increased ability on the part of planters and farmers to finance themselves, both because of better credit conditions and their own improved economic position.

#### *Conditions of Financing*

In those cases where the factor still finances the planter, the arrangements are frequently in the form of a written contract, the terms varying according to the risk as determined by the factor.

The size or amount of the loan is normally based on the volume of cotton produced by the borrower, his financial responsibility, and the character of the security offered. The volume of cotton produced is important by way of indicating the probable quantity of shipments. Commonly, the basis of the advance is so many dollars per bale to be shipped—say, one bale for each \$25 advanced. Security will vary.

The factor may be willing to loan some men on a plain note; in other cases, a mortgage on the plantation may be required, or at least a crop lien. Factors are usually more exacting when dealing with a renter than with a plantation owner.

Contracts require that the cotton shall be handled by the factor, the usual rate of commission being  $2\frac{1}{2}\%$ . The rate of interest charged the planter generally varies from 5% to 8%, depending upon current rates for money during the season. In the New Orleans area, loans are usually made during the period from March to July, running till October or November. Ordinarily, they are not renewed or extended.

### *Security for Loans*

In addition to cotton factors, who sometimes, as indicated, still finance growers to a limited extent, credit is obtained chiefly from banks and merchants and, in the case of tenant farmers, from the landowners.

The merchant is usually an intermediary between the farmer and the bank, or the factor in those occasional cases where the latter engages in financing. Similarly, the landowner is essentially an intermediary between the tenant and the bank or merchant, depending upon which of these two sources the landowner obtains his own credit from.

Factorage business, meaning the sale of cotton on commission, either with or without financing, is perhaps more important relatively at Memphis than at any other of the larger spot markets, it being estimated that 85% of the receipts at this market are consigned to factors and commission men. The estimated volume of factorage or commission cotton is also high at Augusta, 75% to 80%. At most of the other important markets the proportion of cotton for sale on commission is considerably below 50%. At Memphis the financing of the planter by the factor is perhaps in use to a greater extent than at any other market.

Some of the small markets also have factors, and in some places the factor's business is combined with the grocery business, so that supplies can be shipped to customers to be covered by shipments of cotton. This condition does not obtain in New Orleans, however.

The large firms in buying directly usually work on the basis of the futures entirely. Buyers in the interior are given their limits and instructed to use New York or New Orleans futures, whichever suits the firm best. Information obtained is to the effect that Texas markets



use New York almost entirely, as does also Memphis, while points more tributary to New Orleans use the futures of that market because they are in closer touch with it.

The rapid increase in direct buying is of particular interest, in view of the extent of the considerable centralization of the spot cotton business in the hands of a few organizations.

### CONSIGNED COTTON

Small farmers normally sell to general store merchants or local interior buyers, and even the larger planters may do so in certain cases. Usually, however, this latter type of producer sells directly to the buyer or other agent of the large spot merchant, or ships to a factor for sale on commission.

In general, most planters sell their cotton either to the local interior cotton buyers or the road men, who are the agents for the larger buyers in the spot markets. Some planters, however, still adhere to the older method of consigning their cotton to a factor in one of the large markets. General store merchants and local interior buyers who have gathered up miscellaneous lots of cotton likewise may sell through factors on commission rather than to the road buyers. The country merchant, particularly, will ship to the factor in those cases where he operates on funds borrowed from the latter.

The factorage or commission business is of two types, "consignment" and "to arrive," but apparently some concerns do little or no business of the latter class.

According to the former method, a planter, general store merchant, or other purchaser in the country ships cotton to the factor or cotton commission merchant on consignment, to be sold in return for a commission upon the sale, the commission varying according to the market in which the factor is located. For example, the commission charge at New Orleans is  $2\frac{1}{2}\%$  of the value of the cotton, whereas at Houston it is \$1.25 a bale. Upon arrival of the shipment, the railroad company notifies the factor and prepares a manifest, which shows the number of bales, location, point of origin, charges, and so on, of all the cotton brought in for the account of the factor. This cotton may originate at various points along the line, and it frequently happens that no advice of any shipment is received from the shipper and that the first notice the factor has thereof is the receipt of the manifest from the railroad company. The factor turns over this document to the dry-



man, who accepts the cotton from the railroad company and delivers it at the compress or warehouse. The drayman inspects the cotton he receives to see whether or not the bales are in good order. He is usually held responsible for calling attention to any bad order or damaged condition that he finds in the cotton, and these facts are noted and proper inquiry made to determine responsibility.

Upon delivery at the warehouse, the cotton is inspected and sampled, and a sampler's list is prepared showing the numbers of the bales in numerical order. This sampler's sheet is then given to the factor with the tagged samples, and the shipper is advised that cotton bearing certain marks and received over a certain railway has arrived. The samples of the shipper's cotton when received at the factor's office are classed by the factor's own classers, and this classification is recorded by the factor for his own information and that of his clients. No record of the classification is made on the sample itself, however. After the samples have been classed by the factor, they are either placed on the factor's tables for sale or are rolled up and stowed away in large racks with which factor's offices are equipped, depending upon whether the shipper desires that the cotton be sold or held. Some samples may be thus held in the racks for some time before the owner decides to sell.

From the classification of his classer, the factor makes up his mind with regard to the grades and the averages of the grades represented in each particular lot. The samples, laid out on the tables for sale, are inspected by the prospective buyers, who examine and judge the class and value in their own way, having no information as to the judgment of the factor in these matters. The negotiation as to the purchase and sale is carried on with respect to the specific bale or bales represented by the sample or samples. Sales are practically always in round lots.

In general, factors now handle their consignments upon a different basis than formerly. Up to about 10 or 15 years ago, when the farmer ginned his cotton and consigned it to a factor, he had nothing to do with the selling. The factor sold when he pleased and at what price he pleased, and the farmer had nothing to say. But today, as a rule, no factor sells any respectable lot of cotton—say, 50 bales or more—without getting in touch with his customer, telling him the price he can secure and having his approval as to price before trades are made. A prominent factor observes that while the factor reserves the right to sell the cotton at any time after the receipt of it, no factor, to his

knowledge, has ever failed to hold cotton for a planter if it was the desire of the latter and his account with the factor was in satisfactory shape.

This change in method may be attributed to the fact that the planter today desires to control the selling end of transactions through factors, determining both when his cotton shall be sold and the price. Practically, therefore, the planter of today decides largely for himself the conditions under which his cotton is disposed of, even when it is sold through factors.

When the cotton is sold, a sales sheet is made out by the factor showing, among other items, the tag numbers of the individual bales, weights, price received, proceeds, and charges. If any bale is found to be nonmerchantable, that fact is indicated on the sheet. At the same time that the sales sheet is made out, a report of sale is also made to the client.

#### *To-Arrive Cotton*

In the case of "to-arrive" cotton as distinct from "consigned" cotton, the commodity itself is located outside of instead of at the market, and the sale is made for shipment to the market within a specified period. In the New Orleans market, unless some special time is agreed upon, cotton sold "to arrive" is to be shipped from the interior point where purchased within 10 days, with certain exceptions. Failing shipment to New Orleans within the specified time, it becomes a question of delivery, and the local seller obligates himself to deliver the quantity and quality of cotton sold on the spot in New Orleans within two weeks after the time at which it should have been shipped. In such case, the buyer is not compelled to pay the country invoice, but pays for the cotton on satisfactory delivery if made within the two weeks specified.

### METHODS OF SELLING SPOT COTTON

The methods of selling spot cotton may be divided into three general classes: (1) on sample; (2) on type; (3) on description.

*On Sample.* On sample means on "original sample," and a sale on sample means that the sale is on the basis of a sample from each bale, and that each bale must come up to or equal the sample for that particular bale.

*On Type.* In selling by type the dealer may offer his prospective

customer, or the prospective purchaser may offer to buy from the dealer, cotton equivalent to a specified type. The type itself may be made up by the dealer or by the spinner and may be one sample or it may be twenty; that is, a selection of samples made up as a type to which the shipment must conform.

*On Description.* Cotton sold on description is sold to equal a certain grade, staple, or both, without the buyer seeing any sample, the description specifying the grades and staples the buyer is to receive. This method of trading is employed, for example, when actual samples are not available at the moment of trading, but when the buyer is familiar with the character of the cotton coming from the section in which he is making his purchases.

## MILL BUYING

### *Function of the Merchant*

Mills or other consumers with specific requirements of grade and staple to meet rarely buy from factors. Cotton from the country is not, as a rule, in "even-running bales" as to grade and/or staple, but shows considerable variation in one or both respects. Ordinarily, therefore, the mill does not search the factor's tables nor go back to the farmer to obtain a supply of cotton adapted to its requirements. Instead, it goes to a merchant; in general, mills buy from merchants, either directly or through brokers. If located in the cotton producing section, the mill may take cotton from the producers in the neighborhood, or occasionally from a cooperative association. Similarly, the mills may buy from local brokers, but brokers in the neighborhood of the mills are frequently, if not usually, the representatives of shippers. Some of the larger merchants have their own agents under their own names in the mill sections, but agents of shippers sometimes do business under the form of commission brokers in the mill districts.

### *Cotton Trade Loans*

According to schedules returned to the Federal Trade Commission, New York is the most important source of cotton loans. The volume of borrowings of reporting concerns engaged in the spot and futures cotton business from this financial center was three times as great as from New Orleans, which is the second largest money market for the cotton trade.



COOPERATIVE MARKETING OF COTTON<sup>2</sup>*Growth of the Cotton Cooperative Marketing Movement*

(1) The cotton cooperative marketing associations of the present day are not the result of a growth covering a long period. Practically all, if not all such associations now in existence have been organized since 1921.

*Reasons for Recent Development*

Probably the most important reason for the renewed activity in organizing cotton cooperative marketing associations was the depression of 1920-21, when cotton fell from considerably over 40 cents to the neighborhood of 10 cents a pound. Closely allied to this price decline was a general dissatisfaction with the system of cotton marketing, the producers, in short, believing that the middleman's profit was too large as compared with the services performed.

A plan of organization was evolved for the Oklahoma association in 1920, and in April, 1921, the organization was completed and steps were taken to handle the 1921 crop. The Arizona, Mississippi, and Texas associations followed soon after Oklahoma. In 1922, five more such marketing associations were organized, and four in 1923.

*Typical Organization*

Most of the important cotton cooperative marketing associations are state organizations under the local laws governing cooperative associations. They are nonprofit organizations and do not have capital stock.

These associations handle cotton and no other commodities. Each member agrees to turn over to the association all cotton raised by him.

These agreements are usually for five years and are designed to protect the association. In this connection it is of interest to note that the associations have had comparatively little trouble with members refusing to deliver, or, in other words, to live up to their contracts. It seems to be the policy, at least of most of the associations, to obtain compliance with these marketing agreements by persuasion where possible, and to avoid legal process. No fears are apparently entertained that the agreements would be held illegal, since they are practically identical in form with those of the tobacco growers' marketing associations which have been upheld by numerous state courts.

<sup>2</sup> (1) From *The Cotton Trade*, Federal Trade Commission Document No. 100, 1924; (2) from F. Milton, Jr., "Cooperative Marketing of Cotton," *Independent*, December 8, 1923.



(2) The cotton year of 1922, disastrous as it had been from a production standpoint, saw the American Cotton Growers' Exchange successfully established, with subordinate units in North Carolina, South Carolina, Georgia, Alabama, Mississippi, Arkansas, Missouri, Oklahoma, Tennessee, Texas, and Arizona. Of the total crop, somewhere near 2,000,000 bales were handled by the cooperatives. Not a bale of it was dumped on the market at a time when it would cause the market to crash and crumble.

In line with its orderly and businesslike marketing methods, the American Cotton Growers' Exchange has organized an able sales force, with head sales headquarters in Atlanta, under the guidance of one of the ablest cotton experts in the country. Sales offices have also been opened at Liverpool and other European points.

The manufacturer and nonspeculative middleman is finding cooperation a good thing. A stable market, without the dangers of dumping, is as valuable for them as for the grower. The cotton farmer is going right ahead with his cooperative marketing.

### GENERAL SALES METHODS<sup>3</sup>

#### *State Associations*

The various state cooperative cotton associations have their own sales organizations. While the ultimate desire is to build up a "direct to the mill" business, the officers of several of the associations stated that they realized that this could only come with time. At present, the cooperatives sell to anyone paying the desired price, and their customers include the general cotton trade as well as spinners. There is one important obstacle preventing the cooperative from doing a much larger direct to mill business. This is the inability of many of the associations to sell on buyer's call, which is, of course, a method of purchasing followed by many spinners.

#### *Warehousing at New Orleans*

There are three classes of plants used for the storing of cotton in New Orleans—railroad, private warehouses, and public warehouse of the Board of Commissioners of the Port of New Orleans.

Nearly all the cotton coming to the New Orleans market comes by rail. On its arrival, if shipped on consignment, the railroad company notifies the consignee and prepares a manifest showing point of origin,

<sup>3</sup> From *The Cotton Trade*, Federal Trade Commission Document No. 100, 1924.

consignor, number of bales, markings, charges, and location in the railroad yards. This manifest is given to the clerk who receives the cotton for the public warehouse or to the drayman who hauls the cotton for a private press, and the cotton received is checked against it. Each bale is inspected in the head by an employee of the exchange and tagged and listed. A licensed sampler of the exchange draws a 6-ounce sample (about 3 ounces from each side) to be sent to the storer and an 8-ounce sample (about 4 ounces from each side) to be held by the licensed weigher and placed in storage to await the further order of the consignee. It is stored on the side and if "flat" may be piled four or five bales high in the city presses and very much higher in the public warehouse.

Cotton may remain in storage from a few days to several months, and in rare cases, for several years. For a recent year, the average for the public warehouse apparently was about four months, but this average period appears to have been longer than that for any of several preceding seasons.

The railroad terminals receive cotton from all owners if it comes in over their lines. Their warehouses are maintained for the convenience of their patrons. They prefer to have cotton move out within a few days and do not care to be considered as warehousemen; as a result, they employ a scale of charges increasing with the length of time the cotton remains in their terminals, in order to discourage the employment of their facilities for storage purposes.

#### WAREHOUSES OPERATING UNDER THE FEDERAL WAREHOUSE ACT

Nearly every town in the Cotton Belt is in a sense a market for the grade and staple of the particular locality, even though only a few bales may be sold. Many of the towns, often of rather small size, have privately owned public warehouses with capacities of 1,000 or more bales. A large number of these operate under the Federal Warehouse Act, and this number is rapidly increasing.

#### *Inspection at New Orleans*

Inspection of cotton is made chiefly for two purposes—to determine the character of the contents of the bale, called "inspection for mixes," or "inspection in the head"; and to determine the condition of the bale

as to wrapping, dirt, oil, grease, or other foreign matter on the outside and whether water-soaked or not, called "inspection for condition."

*Mixes.* Inspection for mixes is made by opening the head of the bale, taking out samples, and examining them to determine whether the bale is of uniform grade and staple throughout.

*Condition.* Inspection for condition is an examination of the bale to determine whether the bale as a whole is in good condition and fit for further handling or shipment. It should show whether the coverings are sufficient and not torn, whether the ties are intact, whether the bale is wet or water-soaked, whether any oil or grease has gotten on the coverings, and whether the markings are distinct. Every agency that handles the cotton makes this inspection. Not all points are covered by each, but each in turn is responsible for the condition of the bale and such inspection is made as will determine his predecessor's responsibility at the moment the bale is turned over to him, and also his own responsibility when he turns the bale over to a successor.

Besides this inspection for condition made by each agency handling the cotton, a representative of the New Orleans Exchange makes an inspection for condition on incoming cotton at all warehouses. This inspection, however, is said to be principally concerned with seeing that a planter or other shipper to the market gets a square deal, that his cotton is handled and stored properly, and if it comes in in bad condition or contains mixed bales, that it is handled in such a way as to be put on the market to the best advantage for him.

### *Weighing Cotton at New Orleans*

The scales employed in weighing cotton are of the steelyard type with special hooks for holding the cotton, and are marked to weigh pounds only. The beam is swung from a wooden horse, which may be readily taken down and packed in a very small space for moving from place to place. All scales used in weighing cotton at New Orleans are under the supervision of the exchange and are inspected weekly by a representative of the chief supervisor.

### *Sampling*

Samples for classification are taken by making an irregular opening from 9 to 18 inches long in the bagging on the top or bottom of the bale.

Sampling begins with the first buyer in the country and may be repeated with each successive sale until the cotton is in the hands of



the ultimate user. If sampled with each sale, as is the rule except where exchange inspection is employed, the loss from the bale due to the taking of samples is considerable.

The bulk of the sampling of cotton is done at the warehouses in the important spot markets, such as New Orleans, Memphis, and Galveston, because it is in such markets that most of the intermediate sales are made. Under the present rules, at New Orleans, upon delivery at the warehouse, the cotton is ranged by a crew of laborers for inspection and sampling. Representatives of the exchange then inspect it for condition and for mixes, sample it, tag it, and prepare a sampler's list.

Two samples are taken, a part of each coming from the top and a part from the bottom of the bale. One sample is sent to the storer and the other to the exchange to be held as a reserve sample and for the use of the Federal Board of Cotton Examiners in case it is desired to have the cotton certificated for delivery on future contract.

#### *Classification of Cotton Tendered on Future Contract*

The Cotton Futures Act requires that all cotton tendered on future contract at either future market be classed and stapled by a board of three examiners appointed by the Department of Agriculture for that market and known as the United States Board of Cotton Examiners. The course of procedure is for the tenderer to issue an order to the exchange to have the cotton sampled. This order is filed with the inspector in chief of the exchange, and his licensed samplers secure the samples.

### THE FUTURES MARKET

#### *Hedging*

While the marketing and distribution of cotton is a gigantic financial task for the financial institutions in the United States and those of all the principal cotton consuming countries of the world, the ease and effectiveness with which the crop is handled is due in a large measure to the cotton exchanges of the world and the facilities which they offer for insuring against the risks which accompany fluctuations in prices of cotton. Use is made of the cotton exchanges in the United States and at Liverpool in buying and selling cotton for future delivery throughout the year. When a merchant buys a lot of 100 bales during the marketing season, he either sells it immediately to another merchant, spinner, or exporter, or sells in one of the principal cotton markets a future contract for the same number of bales in order to protect



himself as far as possible in the event of a decline in the value of that purchased. If cotton is bought in October and the merchant has no immediate outlet for it, he will immediately sell a January or some other future month contract against it. This transaction serves as a method of protecting the merchant against loss in case of a decline in price. When cotton is sold, the merchant cancels the "hedge" by buying back the future contract.

In the United States, two future contract markets, New York and New Orleans, are used by merchants, brokers, exporters, and others, but the principle of hedging is of even greater importance to the importers of England and the Continent. When a European importer buys cotton in the United States, he immediately sells a future contract, usually in the Liverpool market, covering the amount purchased to protect himself against price declines while the cotton is en route from the exporting country and until it has been sold. Thus, if an importer buys cotton in October or November in the United States he usually sells a January or March future contract against it in Liverpool, the future month being determined by the approximate date of arrival or the probable date of sale of the cotton, and likewise by the relative prices of the various future months in which hedges may be placed.

### *Tenderable Cotton*

Only ten grades of cotton, all of which are supposed to be readily marketable and acceptable to spinners, are now tenderable on the futures contract. In years past, all cotton that was produced, even the very low grades, were tenderable, but in recent years the low grades have been eliminated by law. There are representatives of the Department of Agriculture on each of the exchanges in this country who grade the cotton tendered.

## SELLING ORGANIZATION AND METHODS

Different forms of representation are maintained abroad by exporters. Some exporters have only salaried men in their foreign offices, some have representatives operating on a salary and commission basis, and some representatives are on a commission basis only. There are other instances where exporters sell wholly to foreign importers; others only occasionally employ a commission agent to make a sale direct to a consumer; and a few of the larger exporting firms do a consignment business.

Some of the larger cotton exporting firms handle all their foreign

business through commission agents. One big firm has several buying branches in this country which operate more or less independently of the head office in so far as their buying operations are concerned, but all of them sell through the same agencies in the foreign markets.

Under the present system, foreign firms wishing to buy communicate their requirements by cable to exporters in the United States, who make their offers independently of each other. This practice makes the cotton export business highly competitive. In prewar days, cotton exporters in this country, in the early morning, upon receiving the Liverpool market prices, would calculate their prices and cable their offers to Liverpool. A large volume of business is done in the cotton export business in the execution of orders previously received. Nearly all foreign representatives do business on this basis. An important change from prewar customs is that cotton is now sold throughout the entire year, whereas before the war only about eight months were required for active business.

Practically all exporting firms sell in Europe, while only a few sell in Japan and China. There are also a few firms in this country that not only carry on an export business but also import cotton from foreign producing countries.

### *Consignments*

The change in economic conditions in Europe has brought about the practice by American exporters of consigning cotton to Europe and holding it in storage in the ports to meet the demands from the spinners.

This method, only seldom followed prior to 1914, is now used frequently in distributing cotton to continental consumers. Such cotton is consigned to a representative of the American exporter located in one of the principal European ports and is financed entirely in dollars. The exporter uses an American bank, generally one in New York, to finance his transaction.

### EXPORT SHIPMENTS<sup>4</sup>

European importers in need of cotton usually cable their requirements to several American exporters whom they know and have good reason to believe can supply the type of cotton they require. Many different exporters in reply cable their offers and the European buys from the exporter.

<sup>4</sup> From E. L. Tutt and W. R. Meadows, *Marketing Cotton for Export*, United States Department of Commerce, Trade Information Bulletin No. 288, 1924.

*Liverpool*

The exporter has now sold, say, 1,000 bales of cotton of a certain class. He selects for shipments from his stock in storage the kind of cotton required to fill the order. The cotton reaches a port—say Galveston—where it is unloaded from the cars, pressed to high density, and then loaded on a vessel for shipment to the foreign importer, perhaps at Liverpool. The cotton is then invoiced, and, according to instructions from the European importer, the exporter draws a 60- or 90-day draft on a designated Liverpool or London bank, attaches the ocean bill of lading, insurance certificate, and other shipping documents, and deposits these papers in the bank which finances his business. This bank forwards the draft, documents attached, to a New York bank, and the New York bank commonly sells it in open exchange market and credits proceeds to the Texas bank. The purchaser of the draft, usually a big bank in New York, forwards it with documents to its London correspondent, who presents it to the importer's bank for acceptance. Upon arrival of the cotton, the importer obtains the bill of lading from his bank and takes delivery of the cotton, storing it in a Liverpool warehouse, where it remains until purchased by a spinner.

*Bremen*

Bremen is the important raw cotton center for Germany and its eastern neighbors. A number of the larger American cotton firms either have their own houses in Bremen or have representatives or agencies. American cotton is handled by the cotton importers or merchants on 90-day drafts, although in some cases 60-day drafts are drawn. Indian and Egyptian cotton are received on the same basis as prevails in sales to Liverpool. Business between merchants and spinners is done ostensibly on a cash basis, although sales are common on 60- or 90-day acceptances or bank reimbursement terms. Such sales are in effect cotton commitments on the part of the spinners, because it is not the practice of the Bremen cotton merchants to release the cotton to the spinner until payment can be made.

## BUYING COTTON FOR EXPORT

Several methods of buying cotton are used by export merchants. Many of the larger firms have head offices in one or more of the principal southern cities and a number of branch offices in other cities



throughout the Cotton Belt. From such branch offices, buyers are sent into the nearby local markets to purchase cotton from growers, local dealers, and general supply merchants. The extent to which each of the sources is used varies with the policy of each firm.

### *Buying Organizations and Methods of Operation*

Export buying organizations usually have an administrative office from which the management of the concern is handled, together with the financing, clerical and accounting work, and other details. These head offices often send out salaried agents who travel in assigned areas and purchase and "take up" (that is, accept delivery of) cotton and ship it to a designated concentration point. Some firms have buying agencies established all through the larger markets of the cotton producing section, such agents usually buying from the farmers, small merchants, or f.o.b. men on limits given them by the head office and on a commission basis of about 50 cents a bale. Other firms buy large quantities of cotton from f.o.b. men by telephone, and the latter ship it to the concentrating point, in accordance with the instructions of the buyer, and make draft on the buyer for the value according to the weight and grade of the cotton at the point of shipment.

*Agency Buying.* One of the largest firms has the entire cotton producing territory divided among three large agencies, each headed by a well qualified man who has a large organization under his direction.

*Direct Buying.* Exporters buy very little cotton directly from the small farmer, but it is done in some cases where conditions in the interior market are conducive to such business.

*Country Merchants.* Large quantities of cotton are bought by exporters from country merchants. By country merchant is meant the storekeeper located in a rural district or small town near the farmer, who commonly furnishes the farmer with provisions and general equipment and supplies to make the crop.

### *Delivery*

Exporters usually accept delivery at the point of purchase, but subject to adjustments for weights and/or grades when the cotton is received at a specified concentrating center. The exporter will, however, send a representative to buy from a f.o.b. man or local merchant and pay the seller by check, or will buy by telephone and permit the f.o.b. shipper to draw a draft against him, attach it to the bill of lading, and obtain cash at the local bank.



## X

### WOOL<sup>1</sup>

THERE is no open market for wool in the United States. Wool is sold mainly by private treaty, in strong contrast with the open market and auction sales in London and Australasia. In London and Australasia, the world is the buyer, and the stability of the auctions (the essence of the open market) is maintained by competition among purchasers from every manufacturing country.

In the fleece wool states, ignorance of wool values and of market practices is further complicated in a large part of the region by the scattered nature of the clip. Competition for the wool is rather limited under such conditions, and wool is often first bought by local men who are possessed of little or no more knowledge of wool grades than is possessed by the growers. In areas where more wool is produced this usually is not the case, but growers have been seriously handicapped by lack of knowledge of wool values.

The most important agencies involved in getting wool from the producer to the consumer are the country buyer, the country assembler, the central market dealer, the commission merchant, the broker, and the manufacturer. In the farm states, the country buyer gathers up small lots of wool and either sells them to some merchant in town or holds the wool in his own warehouse. The central market dealer sends his agents through these smaller towns or concentration points and buys such of the wool as is suited to his needs. The wool is then shipped to some larger center, where it is graded on the basis of mill requirements and finally sold to the manufacturers.

Another form of marketing is one in which the growers consign their wool to wool warehouse companies and usually obtain advances amounting to a certain percentage of the market price of their wool. The warehouse company grades the wool and holds it for the inspection and purchase of the broker or mill agent. When the wool is sold, the warehouse company remits to the grower the price obtained less any advances that may have been made, interest due on money already

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<sup>1</sup> From *The Wool Growing Industry*, United States Tariff Commission, 1921.

advanced, and a certain charge per pound for grading and carrying.

Recently the cooperative idea has been applied to wool marketing. Great quantities of wool are now assembled annually by wool pools which are, generally speaking, cooperative organizations made up of woolgrowers. The wool of the individual growers is assembled and pooled at some point, where it is graded and held for the inspection of wool buyers. Frequently advances are made on the wool so pooled. The buyers, who may represent brokers or mills, visit the points where wool is assembled and bid on the wool either in job lots or by grade, depending upon how the wool has been handled by the pool.

In the range states, wool selling is quite different from that in farm flock regions. Contracting the sale of the clip before shearing has been practiced by many ranchmen, especially when the contract provided for an advance payment, or at times when there appeared to be danger of a decline in wool prices. However, woolgrowers have usually lost heavily by this system, and in general they now consider it unbusiness-like. Much of the range wool is sold to eastern dealers at shearing time or very soon thereafter, the buyers dealing directly with the wool-grower at his shearing shed or warehouse. This method is sometimes handled by sealed bids, each buyer offering his bid under seal, each ranchman or group of ranchmen reserving the right to accept or reject any or all bids. Much wool from the range is also consigned to commission houses in large wool centers, most of it going to Boston, Philadelphia, Chicago, and to St. Louis and other Missouri River points. Part of that consigned from the Washington-Oregon-Idaho district goes to Portland, Oregon.

Much effort has been spent in attempts to work out systems of cooperative marketing of range wool, and considerable progress has been made, though naturally the movement has not developed to the same point in the range country that it has in some of the farm flock areas. Many systems have been tried out, ranging from very simple and temporary organizations handling sealed bids that are accepted or rejected by the sales committee, to permanent, incorporated organizations serving in the capacity of commission houses and dealing on the basis of binding, legal contracts with the growers. When the wool market is in a healthy condition there is fair degree of competition among buyers in those parts of the range area that yield large quantities of desirable wool, and a number of buyers are attracted to a given community. The results of some of the cooperative selling indicate that it helps to make competition among buyers even more keen

and facilitates businesslike transactions. It promises also to alleviate, to a certain degree, heavy overloading and serious depression of the market.

A striking peculiarity of the wool market of the United States is the fact that although from 550,000,000 pounds to 750,000,000 pounds of wool, with a total valuation ranging from \$112,000,000 to \$350,000,000, are handled annually, there is no established public market for the commodity. Practically all of this vast quantity of wool is bought and sold by private agreement. Another peculiarity is that while there is no open public or auction market, a very large proportion of the wool passes through two or three leading centers. In other words, the marketing of wool is probably more concentrated than that of any other important commodity.

### CHARACTERISTICS OF EASTERN WOOLS

The bulk of the clip east of the ninety-eighth meridian is "bright" wool—that is, it carries relatively little discoloring foreign material. In and somewhat eastward of the Great Plains, however, a large part of the clip is quite dark in color when shorn, owing to the character of the ground on which the sheep graze, and is known as "semibright." These wools come from Oklahoma, Kansas, Nebraska, parts of Missouri, Iowa, and the Dakotas, and areas in Minnesota, Wisconsin, and west central Illinois. The darker color is their chief distinguishing feature; they scour out white.

Aside from the fine wool region of the upper Ohio valley, fleece wools largely grade below half-blood and are chiefly of combing length. This results from the predominance of the Down breeds of sheep and the favorable conditions for making a good growth. The chief exceptions to this statement are portions of the clip of southern Michigan, northeastern Indiana, and southeastern Iowa, and of some scattered areas elsewhere. In these areas, finer wools, mainly combine, are grown. Western ewes secured by growers in the farming states shear some half-blood wool and some fine wool but a majority of their fleeces grade three-eighths or lower. Wools shorn from fed western lambs and sheep are normally better grown than territory wools shorn in the sections whence these sheep and lambs came. They grade from fine downward and are not typical of the fleece wool clips. They are often graded as "western" when sold at points of origin.

Virtually no fine wool is produced in the South. The Kentucky clip,



largely a low-three-eighths combine, leads in quality, with Tennessee and Virginia wool, which includes that from western North Carolina, as a close second. At points of origin these wools usually are divided into piles as free, slightly, medium, and hard burry. "Georgia" and "lake" wools are typical of the tidewater sections and in general embrace the clip of the seaboard and Gulf States south of Virginia. There is little difference between the two, as they are shorn from the nondescript sheep common to these areas, save as modified locally by recent breed improvement. They are usually free from bur, except when run on fenced fields, but are "run out" and uneven. Approximately 70% of the clip is three-eighths wool, and most of the remainder goes as quarter-blood. Owing to the character of the grazing, a considerable portion is often of clothing length, but the greater part is normally of baby combing length.

#### METHODS OF SALE ON THE RANGE

The woolgrower has three methods for disposal of his clip. He may sell it on contract in the fall or winter to a buyer, either a local man or the representative of an eastern firm; he may sell it by private treaty at the shearing shed after shearing to these buying agents or to one acting directly for a manufacturer; or he may consign the clip to a firm for subsequent sale on commission. This firm may buy wool on its own account, or it may do a commission business pure and simple. A variation of the second and third methods consists in the pooling of their wool by a number of growers and sale by private treaty at producing centers, sale by auction at such centers, or consignment as above.

##### *Sale on Contract*

When range-grown wool is sold on contract in the late fall or winter, a part of the purchase price usually is advanced by the buyer at the prevailing rate of interest. He protects himself from unusual deficiencies in the clip by clauses in the sale contract. Furthermore, the buyer does not contract for wool in advance of shearing unless he is confident that the ensuing market will be strong and that the price level will be superior to that at which the contract was made. Owing to his intimate connection with and knowledge of the manufacturing demand and of foreign trends in the trade, he is in a position to forecast the domestic market with far greater accuracy than individual growers. He governs his contractual purchases accordingly. This method of sale is more common in Utah and Nevada than in other range states.



*Sale at Sheds after Shearing*

In years when the market is active, wools purchased at the shearing shed during or after shearing usually are strongly competed for by the buyers. Shed buying may be affected by unduly high price demands on the part of the growers. In such cases, experienced buyers mark time until the demands are modified; they usually affect indifference as to purchase until what they consider a reasonable bargaining level has been reached. Concentration of market demand on more or less definite types of wool vitally affects the competition for other types. Buyers then do not care for the undesirable types except at prices sufficiently low to insure against loss, and indifference as to purchase at the prices often asked is very real indeed. Entire areas may then experience but little competition on the part of the purchasing agents. In such cases the buyers readily accept consignments.

*Sale by Consignment*

When the market promises to be unsteady or to experience a decline during the ensuing season, wool dealers generally curtail their contractual purchases and limit their buying at range points to clips which can be bought so low that the danger of loss is reduced to minimum. Wools which it is believed will be most unfavorably affected by the trend of the market are sometimes entirely neglected by most buyers. The buyers' bids, as contrasted with the growers' demands, are often so low that the latter will not even consider them. Consignment is then in order. The grower usually figures that he will secure more for his wool. The buyer figures that his firm cannot lose, because the sheepman has assumed the risk. This is not always true, because advances made on the consignment occasionally (though rarely) are greater than the value of the wool when it is later sold to the mill. In normal years, it sometimes happens that competition at range points for especially desirable clips forces a buyer who cannot pay the price set by the growers to accept such wools on commission with a "guaranteed advance" representing nearly or quite their full value. This is done to maintain good relations with the growers, generally men with whom the firm has had extensive dealings, as well as to secure the type of fiber wanted by certain mills in order to keep them steadily on the selling list. Such wools are usually sold as soon as possible in order to protect the advances made on them. In consignment years advances are more closely scrutinized. In general, however, the buyers have contracted for the wools or purchased them at the sheds in the years

when it was most profitable for them to do so, and have taken them on consignment in years when contractual or range purchase promised to result in a loss. The dealers have thus dominated the situation to a considerable extent, and greatly to the disadvantage of growers who had to sell quickly to secure needed funds; but sheepmen in a position to hold their clips indefinitely have been very lax in the sale of their wools.

It is a common saying in Boston that "consigned wools make a weak market." In years when a great part of the wool clip is consigned, the market undeniably has been weak. The consignment of the wool, however, primarily is the result, not the cause, of the weakness. But the fact that a large part of the domestic supply has been consigned tends to accentuate any weakness which may be present. The heavy volume of consigned wools represents an uncertain quantity. The growers may become impatient and demand immediate sale of enough wool to depress the price for all wools. A tendency often develops to move the wools more rapidly than they normally sell, and this tends to cause lower prices. The amount thus sold varies with the insistence on sale by consignors, the interpretation of the market by firms, and the degree of price decline sustainable before the margin between advance or purchase price and selling price is wiped out. No reputable dealer deliberately sacrifices consigned wools.

### *Associative Sales*

The method of wool sale through a "pool" formed by range growers has been a common practice in certain areas. The most prevalent method of disposal of pooled wools used to be by sealed bid auctions. This has decreased with the growth in the number of small outfits, many of which were not strong financially and wished to sell quickly, and with a general necessity for purchase of considerable areas of land by the growers as a result of the extension of homesteading into semi-arid sections. As open ranges became limited in extent, such investment in land was obligatory to secure partial or complete control of contiguous range areas, as well as to obtain deeded lands for spring and fall grazing and for winter feed production. These investments have tied up capital, while increasing costs from other causes have forced the sheepmen to borrow heavily each year, the loans usually to be repaid after shearing or after sale of lambs in the fall. The need to sell very soon after shearing thus became more general, and a smaller proportion of the producers have been in a position to pool their wools.

A much more important factor has been a pronounced increase in the number of local buyers operating for the large wool houses. Many of these firms now maintain permanent western representatives at central range points. Constant activity of these local and regional representatives, together with better transportation facilities by both railroad and automobile, which have greatly extended the operations of itinerant buyers, have sharpened competition for the wool. Although the sealed bid auctions of former years are held occasionally in scattered range areas, they have largely disappeared. The chief exception is in Texas, where merchants and bankers still sell a large part of the clip for the producers, either by auction or private treaty.

A further factor is the operation of a number of commission firms which do not buy wool on their own account. Until 1920, these have been used by the growers more largely as a club to force up prices at sales at the sheds than as a large factor in the direct marketing of wool. One of these, in New Mexico, commands great respect in the trade. Its operations doubtless would be considerably strengthened if it sold the wools chiefly in market centers. Another operates largely in Arizona but with headquarters in Boston. Two others offer competition on the northern ranges; one, having headquarters in Boston, handles little but wools put up on the Australian system.

### MARKETING OF FLEECE WOOLS

The marketing of the fleece wools differs from that of the range clip primarily in the method of collection at points of origin. This part of the domestic clip is produced in small units on the farms, and a considerable portion is grown in areas where sheep are present in small numbers. In such light shearing sections there is not as much competition as in range regions or in fleece states areas where sheep are numerous. In general, the fleece wools are first assembled by country merchants and other local purchasers, who frequently buy on commission for wool firms operating in these areas. These firms may be located at country points or may have headquarters in the central markets. At times, the local buyers operate for mills, and both mills and central market firms often send representatives to supplement the activities of their local agents, to whose credit funds for the purchase of the wools are placed in local banks. They have usually bought for a commission of one cent a pound. When enough wool has been collected at one point to warrant shipment, the lot is forwarded to the market center and graded



by the firm which purchased it. If the wool is bought on his own account by a local merchant, he may consign to a central dealer or sell to an itinerant buyer representing such a dealer.

These local buyers, except for occasional firms or individuals, usually have rather limited knowledge of wool grades. In areas where the clip is of considerable size, their knowledge of such matters has to be fuller than when the clip is small and competition is slight. In the latter localities wool is "just wool," and all is bought at one price, save in the case of clips, or portions thereof, which are so palpably out of condition, burry or seedy, that the reason for a discount is plainly evident.

In areas where the wool clip is of moderate to large size, the price is based on grades, but normally little or no difference is made between desirable and less desirable clips of the same grade. A premium offered on good wool usually renders it impossible to secure much other wool except at practically the same price. The careless shepherd generally profits somewhat at the expense of the good flockmaster, who rarely secures all that his clip is worth. A discount of from 10% up to, in some cases, about 20% is taken for burry and seedy, cotted, dead, and buck fleeces, and tags, and to allow for the shrinkage which occurs when fleece wools are shipped and stored in cool warehouses. This shrinkage, due to the "greenness" of the fleeces as a result of shearing under humid atmospheric conditions, sometimes while the belly wool is damp from dew, is characteristic of the fleece wools and even of territory wools from sodded range areas if the altitude is not too great. East of the one-hundredth meridian it varies from 1% to 3%, sometimes 4%, according to conditions when the wool is shorn.

### *Wool Pools*

The recent development of cooperative wool sales by pooling the clip and sale at strategic assembling points to dealers or mill buyers or by consignment to a firm at one of the central markets, has received considerable attention in recent years. It was widely practiced in 1919. A considerable number of the Iowa wool growers and a smaller proportion of those in Illinois shipped their clips to a central market commission company with excellent results. The net increase in price to the grower ranged from a few cents a pound in areas where considerable wool was produced and competition normally was fairly sharp, to several times as much in sections where less fiber was produced and less competition was the rule. Similar results were secured on practically 2,000,000 pounds of wool in Ohio, which leads in the development of



state wools. Excellent returns were also secured in numerous counties in other states. These cooperative activities forced up, to a considerable degree, the prices paid by all local buyers. In certain counties this principle of cooperative wool marketing has been in vogue for several years. One local club in Tennessee has been thus operating for approximately 30 years.

Where wools have been assembled at strategic points and graded before the eyes of the producers, the grading has had a marked educational value. The growers saw at once the cause and the cost of low grades, particularly in the case of cotted, burry and seedy, and short-fibered, run-out fleeces. Efforts on the part of various agencies working for the betterment of the flocks were given point by this optical demonstration on a dollars and cents basis, and the better growers received the full value of their wools.

The wool trade is an exceedingly speculative business. It could not be otherwise in view of the wide range in quality, length, character, shrinkage, and other factors of condition which are always present. Future trading in a commodity with so many variable factors is impossible. Dealing in wool lacks the stabilizing influences exerted by trading in futures. Wool dealers, therefore, have had to "hedge" their operations by speculative purchases and to depend on an excess of profit over loss for a series of years. Should the growers dispose of the clip through commission firms only, they would themselves assume the risks of the business. Whoever carries the wool until called for by the mills must assume the cost of transportation, grading, handling, storage, and other items, and the risk due to market fluctuations.

#### *The Wool Dealers' Place in the Trade*

As the trade is now organized, the wool dealers assume the expense and risk during the active marketing season and dispose of the wools as needed by the mills. This has been a service which the growers hitherto have been unwilling or unable to render, but it is essential in the marketing of wool. The mills usually have not the capital or the credit to buy a year's supply at a time. A manufacturer with strong financial backing may buy a large part of his supply at range points if he is sure that he will profit more thereby than if he bought as needed on 60 days' dating or more, but few mills care thus to deal in wool. They usually buy only such grades as are adapted to manufacture into fabrics for which they have or expect to get orders, and they go to the dealers for the wools as required.

One reason why many mills do not care to purchase far ahead is that often they are not sure just what grades they will need. If mills bought heavily at range points, they would have to resell a portion of the purchases as "off sorts"—that is, as qualities not adapted to the particular mill needs. Such wool would have to be sold on time, just as any dealer sells, and would represent so much inert capital. Large corporations with many factories turning out a wide range of fabrics would seem to be an exception, but such concerns normally do not deal in wool extensively. Many mills buy only graded wools and insist on very close lines, which they often pay premiums to get. They prefer to deal with certain firms which know their desires, grade the wools accordingly, and with which necessary adjustments and allowances can be made with a minimum of friction.

The dealers have financed growers to some extent and mills to a considerable extent. During the late winter months, they usually have a considerable surplus of funds or credit which they do not hesitate to extend to reputable sheepmen who are in need of the additional funds to carry them through shearing. The dealer frequently advances a part of the value of the clip at a lower rate of interest than local range banks will grant, particularly when such banks are already heavily loaded with securities for loans on sheep and wool. When this is done, the sheepman usually has to pay a commission to the dealer if the wool is sold to another firm. In financing the mills, the dealers sell on an open account on 60 days' rating, often on much longer time when the market is dull or credit is restricted. One per cent is deducted from the price for cash within 10 days, and 1% has to be paid to a broker if the sale is made through such intermediary. Frequently the mill is further financed by deferment of settlement at the prevailing interest rates; such a loan may not mature until the finished product into which the wool enters is paid for.

This financing of the mills, and the financial strength of the dealers themselves, by refusing to sell at what is considered an unduly depressed level, enables them to minimize the price declines which may occur. Their power in this respect is weakened by competition among firms, particularly on an exceptionally dull market. It frequently is the case under such circumstances, and occasionally even on a normal market, that the actual cost of wool in the warehouse is not considered in making a sale. The firm figures on breaking even on another sale or in the foreign wool department or in another season.

MARKETING FOREIGN WOOLS<sup>2</sup>

In the marketing of Australian wools, regular auctions were introduced as early as 1835. Until recent years, although the Australian auctions steadily increased in importance, the great part of the wool product of Australia was sold through the London auctions.

The Sydney auctions are the most important of all the sales in Australia. The amount of Australian wool handled through Sydney is now approximately three-quarters as large as the amount of Australian wool sold in London. All the other Australian states, except Western Australia, have sales of their own. Those next in importance to Sydney are the two Victoria sales at Melbourne and Geelong.

While English wool merchants are still the largest buyers in all Australian sales, except that at Sydney, the portion of the wool sold at Sydney to English buyers is decreasing.

Mr. Clapham says:

For two generations those sales have been the centre of the international wool trade; and, though they are now to some extent losing that position, they remain one of its most important features. Very little colonial wool is disposed of by private contract in London; all, or almost all, comes under the hammer at the Wool Exchange, Coleman Street, E. C. Of the wool sold there, fully two-thirds now comes to this country "in the grease." A very small and declining quantity is of the type known as "washed fleece"—wool carefully cleansed while yet on the sheep's back. The remainder is scoured wool and "slipe" or skin wool—that is, wool from the hide of the slaughtered sheep. The use of scouring is to save freight charges, especially when the bales come from a remote inland station; for the yield of pure wool from a greasy bale is not often more than 50% of the weight, and may be much less. The scouring process, however, reduces the value in England. The scoured wool often gets unpleasantly felted when compressed in the bale, and in many of the scouring establishments the work is carelessly carried out. The skin wool has naturally increased in quantity with the growth of the frozen meat trade; but the greasy wool is much the most important class, the most popular with home dealers and users.

Australasian wool has always been the staple article at the London sales. For many years however, wool from the Cape and the Falkland Islands has been sold together with that from Australia. Of late years, consignments from Punta Arenas, the River Plate, and elsewhere have also been disposed of at these "Colonial," or "fine wool" sales. The sales are divided into six series—January, March, July, September, and November. Generally, as has been said, the Australian wool is

<sup>2</sup> From Paul T. Cherington, *The Wool Industry* (Chicago, A. W. Shaw Company, 1916).



dispatched to England by the financier who has advanced part of its value to the owner; but a certain quantity has already been sold out to dealers in the Colonies, who put it up for resale in London—"speculators' wool" it is sometimes called.

The organization of the wool importing trade in the United States is difficult to describe accurately because of the individual variations in methods of conducting the business. In general, it may be said that most of the fine wools are imported through Boston, while a large percentage of the carpet wools enter through New York.

Of the Australian wools brought into the country, it is estimated that a little more than one-half normally comes direct from Australia, and little less than one-half comes via England. This is a radical change from the route followed by Australian wools until within the last few years, when practically all came via England. Even at present, a portion of the wools bought by American merchants in Australia is shipped to the United States by way of England, so that the amount coming in from Australia by direct shipment does not accurately represent the amount actually purchased in Australia by American buyers.

New Zealand wools still come chiefly via England. One wool merchant estimates that this proportion in ordinary years will now be at least 85% of the total amount of New Zealand wool brought into the country.

The South American wools are nearly all bought by private purchase in Uruguay and the Argentine Republic, and approximately 85% of those for use in the United States is shipped direct. The remaining portion of the South American wools used in this country is bought at the London sales.

The combing wools, known for so long in the Tariff Schedule as Class II wools, under ordinary circumstances come largely from the United Kingdom and also from South America, New Zealand, and Australia. A few of the Turkish wools imported direct from Asia Minor come under this class, but most of the wools brought from that part of the world are too coarse to be ranked as Class II wools. All cross-bred wools from South America, New Zealand, and Australia having a trace of merino blood have been entered as Class I wools.

Of the carpet wools, those received from China, Russia, and the United Kingdom are practically all shipped to the United States by direct routes. Of the Turkish wools, perhaps 75% comes direct from Turkey, about 10% is bought in the United Kingdom at Liverpool sales, and the remainder arrives by various continental routes, some from Belgium, some from France, and a little from such other countries



as Italy, Austria, Germany, and Denmark. Of the British East Indian wools, about three-fourths come from England, and the rest is divided between direct shipments and shipments via the Continent, Scotland, or Canada. Most of our carpet wools come from China.

Boston is generally recognized as the second largest wool market in the world, being exceeded only by London. There are a few Boston houses which deal exclusively in imported wools, but the greater part of the importing into Boston is done on a merchant basis by the large wool dealers who handle imported wools as one department of their business. There is said to be practically no commission business in foreign wools in the Boston market.

A few of the larger mills have done some foreign buying on their own account and have imported the wools direct. This is particularly true of graded wools imported from London, Sydney, or Melbourne, where they are bought in the public sales, or from Buenos Aires and Montevideo, where they are bought at private sale. This method of direct importation by mills is open, however, only to such mills as have needs large enough to bear the cost of sending out a buyer to make the purchases, and capital enough to carry the speculative risk during the time the wools are in transit.

### THE WOOL MERCHANT

Although the United States is the third largest wool producing country in the world, its trade in domestic wools is almost entirely intramural. No appreciable quantity of our domestic wools is exported. The fact that the price of wool as a rule is higher in the United States than elsewhere apparently would be enough to account for this. This eliminates from our wool handling system a form of buying prominent in the colonial wool markets, and very important even in the British. Thus we have one very marked difference between our wool marketing situation and that of other countries—whether it be the great wool growing countries or colonies which export their product, or England, which is quite as much a wool assembler and distributor in the world's trade as a buyer for manufacture. British exports of wool in normal years amount to about one-third of the importations. Buying for re-export to dealers is clearly a much simpler commercial operation than buying for separation into closely graded lots to be sold to mills for specialized manufacture.

Furthermore, our American grown supply is very promiscuous and

uneven in its character, calling for much greater risk and demanding much more detailed knowledge in handling profitably; and this variety is increased by the fact that the domestic supply is inadequate in quantity for our own consumption and is supplemented each year by large quantities of imported wools. This diversity offers an additional contrast with British conditions.

The buying side of the American wool merchant's business has been built up to take care of these complicated conditions. Wool buyers form the conspicuous part of the working force of the American wool marketing system, and it is their work which constitutes the chief draft on the wool merchant's expense account.

The selling side of the business, on the other hand, has been influenced largely by the high degree of geographic concentration of the wool manufacturing industries in New England and the Philadelphia section. Massachusetts, Rhode Island, and Pennsylvania produced over 60% of the United States' output of the manufactures of wool in 1910. This, more than any other one factor, seems to explain the present localization of wool dealing in Boston and Philadelphia. In selling, the organization of the business is simple as compared with that in buying. Although the sale of wool determines the dealer's ability to make his business profitable, it involves no problems or methods analogous to those in its purchase. Most of the dealers are constantly in touch with the wants of their own clients or of other manufacturers, and wool selling is largely a matter of promptness to take advantage of indicated conditions, personal touch with buyers, and a normal amount of luck. Such, in brief, are the buying and selling sides of the wool merchant's equipment.

The work of the "buyer" sent out by the eastern wool merchant houses is the most important, most complex, and most uncertain feature of wool marketing as it is practised in this country. The wool buyer is required to be a clever judge of the profit yielding powers of each lot of wool bought, but the price he offers cannot be based on that judgment alone. There are crop data for the wool clip of the various wool growing countries, but in the United States these find no centralized mechanism for their interpretation, such as is offered by the London wool auctions, or as may be found in the cotton and wheat exchanges, which do so much to stabilize prices in those commodities. The individual interpretation of these data lies at the bottom of the whole wool making system in this country. It is responsible for such sudden outbursts of speculation as occurred in the "sheep's back"

buying craze in 1909, and it makes the buyer's position often very precarious. Collusion on the part of the buyers or pooling by the flockmasters may be resorted to, but under ordinary conditions, uncertainty and instability characterize this branch of the business.

The functions of the eastern wool merchant, so far as the domestic wools are concerned, resolve themselves into two main tasks. The first is the purchase of large blocks of high-grade territory wools, and the purchase or marketing on commission of numerous small lots of medium or low-grade fleece wools. The second task is the assembling of these wools, grading them, and storing them in lofts at the chief buying centers for eastern mills, ready for purchase in graded lots for delivery in quantities and at prices to suit their manufacturing customers. Many of these merchants also assume functions of a financial nature. It is not an uncommon practice for them to advance to the growers of the west, or to the small merchants of the east, substantial sums of money on consigned wool, or even on prospective clips, and it is sometimes necessary for the merchant to carry his manufacturer customer for months, or even, in some cases, until he can realize on his manufactured product.

The marketing of imported wools, while sometimes conducted as a special business, is more often combined with trade in domestic wools. As a rule, it involves outright purchase, either direct through buyers sent out from here to cover the London, Liverpool, or Australian auctions or to buy in the Argentine or Cape markets, or else through brokers or agents permanently located abroad.

The New York Wool Exchange not only furnished the most striking example of the first type of effort to modify the wool handling system, but it was by far the most comprehensive attempt. This enterprise attempted to revolutionize nearly every phase of wool marketing in this country. It not only undertook to perform much of the work of the wool merchant, but it aimed to change completely the established American methods of wool buying and selling by the introduction of the London system of public auctions. It was also an attempt to shift the center of the wool trade from Boston to New York, and to persuade New York bankers to look on wool paper as favorably as Boston bankers do. In November, 1898, after about two years of dwindling activity, the exchange closed its doors and passed out of existence—salesroom, warehouse, newspaper publication, and the Tradesmen's National Bank, which was to have taught New York bankers how to



handle wool paper. The building, still known as the Wool Exchange Building, is now used for office purposes. The failure was complete.

### GRADES OF WOOL AND THEIR USES

Wool is extremely complex and varied in its characteristics. As a commodity of commerce it is one of the most difficult to classify and grade for the systematizing of trade. While the variation in wool occurs somewhat in correlation with the types and breeds of sheep, wide variations exist within the breeds. Fleeces having the same fineness (diameter of fiber) often vary greatly in strength of fiber, spinning properties, length, and the contents of grease (natural wool oil) and dirt. Soil, climate, and feed have far-reaching influence on the production of wool. In some sections of the western range where grass is sparse and sand storms are frequent, fleeces of merino or Rambouillet sheep may shrink as much as 65% to 75% or more in grease and dirt, when scoured or cleaned preparatory to manufacturing, while fleeces from sheep of these types when grown on excellent blue-grass pastures where sand storms seldom, if ever, occur, many shrink only 50% to 60%. Such characteristics as strength of fiber, spinning property, and length of staple are also affected by the conditions of soil, climate, and feed.

Commercial grades of wool are based primarily on fineness or diameter of fiber. The very finest of wool is known by the grade term "fine." Wool of this grade is produced by merino or Rambouillet sheep. "Half-blood" wool is the next grade coarser than fine, but it is commonly considered a fine wool; that is, the fibers have smaller diameter than those of the wool which is commonly called medium wool. A large percentage of the half-blood wool is grown on sheep having considerable merino or Rambouillet inheritance. It should be understood that the word "blood" is a wool grade term and has no reference to the breeding of the sheep, but the use of a fraction in connection with the word blood indicates a certain fineness or diameter of fiber. "Three-eighths blood" is the finest and "quarter blood" the coarsest of what is known as medium wool. These grades are produced chiefly by the medium-wool mutton breeds, such as Southdowns, Shropshires, and Hampshires; also by the cross-breds resulting from mating the fine and long-wool breeds, which is extensively done on the western range. "Low quarter blood" is coarser than "quarter blood," but the finest of what is known as coarse wool. "Common" is medium in coarseness, and "braid" the coarsest of coarse wool. Oxfords produce a great deal of "low quarter



blood" as well as "quarter blood," and all grades of coarse wool are grown on the long-wool breeds, such as Lincolns, Leicesters, and Cotswolds.

Fine and half-blood wools are used in the finest of dress goods, and choice wool of these grades is usually in strong demand. The modern tendency toward mutton production is increasing the proportion of three-eighths and quarter-blood wools used in the manufacture of coarser clothing, for which there is a large demand under normal conditions.

Low quarter blood, common, and braid are used in the coarsest of goods, such as heavy overcoating, blankets, and carpets. Both demand and prices for the three coarsest grades are less, and they are not produced so abundantly in America as the fine and medium wools. Wool of good length (about  $2\frac{1}{2}$  to 3 inches long) is desired for the manufacture of choice, durable worsted [worsted] goods. When wool has fibers only about one to two inches long, it is used largely in the manufacture of woollens or flannels.

Grading of wool by the grower was very uncommon in this country prior to the World War. There is today, however, a marked tendency on the part of those who pool or consign their wool to sell by grade. Selling any commodity ungraded is bound, in the long run, to work to the advantage of the buyer. This must be true, because the buyer is naturally in a better position to judge the true value of ungraded commodities than is the average producer. The United States Department of Agriculture has established grades for wool based on diameter of fiber.

#### *Origin of Blood Terms Used in Wool Grading*

The terms "half-blood," "quarter-blood," and the rest, as now applied to domestic wool grades, originated over a century ago. They came into use when the rather nondescript, coarse-wooled, common sheep of the East were being graded up with Spanish merino bucks, subsequent to the embargo of December, 1807. According to the amount of merino blood present in the sheep, the wool was sold as quarter-blood, half-blood, three-quarter blood, and full blood. Wool from Saxon merinos and Saxon-Spanish crosses was classed separately from full-blood Spanish after the Saxon sheep reached the United States a number of years later—during the twenties. For many years these blood terms remained fairly indicative of the breeding of the sheep which produced the wool.

## THE TARIFF AND THE PRICE OF WOOL

Wool prices, like those of sheep and lambs, have followed a rather tortuous course during a period of years. Fluctuations in wool prices, while not so wide as those for mutton and lamb, have exceeded in extent and violence those in most other important commodities. One reason for these wide variations is the fact that wool is a world commodity and its price level is, to a considerable extent, determined by world conditions of supply and demand. Another reason is the fact that almost from the founding of the country wool has been the subject of various legislative enactments. Probably no tariff bill has been enacted in the United States that did not either impose, raise, lower, or eliminate import duties on wool. These artificial influences have had a tendency to modify the natural play of economic forces and have resulted in materially changing available supplies of wool in the United States and, therefore, in raising or lowering prices.

## XI

### HIDES AND SKINS<sup>1</sup>

WE may distinguish the following classes of producing units:

1. The great packing house, serving a very extensive territory (in some cases through direct export trade) by a widely ramified distributing system;

2. The large wholesale slaughterhouse, which is sometimes a packing house on a smaller scale, but which in most parts of the world serves a more local trade, covering a considerable area, though centering, as a rule, in a city of some size;

3. The small wholesale slaughterhouse, which is the foregoing on a reduced scale, situated as a rule in or near a smaller city or large town, and serving a still more local trade;

4. The retail slaughterhouse or butcher's establishment, serving the immediate needs of a small town or village and of the country dependent on it;

5. The farm, estate, or ranch, slaughtering on a very small scale for home consumption.

6. The nomadic or seminomadic tribe or clan, slaughtering casually for immediate consumption and collecting the by-products unsystematically till an opportunity occurs to dispose of them.

#### *The Output of the Great Packing House*

In the United States, the typical, though by no means the exclusive unit producing hides and skins is the great packing house. The organization disposing of the output of these establishments is the simplest to be considered. The reputation and known experience of the sellers imply a guaranty of uniform and satisfactory selection and make practicable the purchase of a tanner's raw material from them with a minimum of intervention by middlemen.

In the River Plate countries, in Canada, in Australasia, and here and there in other parts of the world, the actual organizations do not

<sup>1</sup> From John R. Arnold, *Hides and Skins* (Chicago, A. W. Shaw Company, 1925), ch. vi, pp. 119-140; pp. 112, 118.

differ much from that just outlined. The distance at which the consumers or importers find themselves from the producing centers, however, leads them systematically to employ brokers in the latter as purchasing agents.

### *The European Auction System*

In northwest and central Europe, the typical unit of the meat industry is not the great packing house but the large or medium-sized wholesale slaughterhouse; and the characteristic institution through which are distributed the hides and skins turned out by these establishments has long been the public auction. With little variation, this method rules in the domestic hide and skin trade from Havre to Danzig and Prague and from Glasgow to Budapest. It does not, however, extend to Spain, Portugal, Italy, Russia, the Balkan States or—except to some extent in Denmark—into Scandinavia.

### *Auction Rules and Methods*

An auction is held, as a rule weekly or monthly, in the most important center of each producing district, with the largest and most frequent sales in the principal cities. The actual auctions are paper affairs, but the slaughterhouses send their hides and skins, collected since the last sales, to the auctioneers' warehouses a few days beforehand, where they are open to inspection by prospective buyers.

The buying at the European hide and skin auctions is partly direct and partly conducted through brokers. Where purchasers are not on the ground, and particularly where the stock is to be exported, the services of the latter are very generally utilized.

### *Auctions of Imported Raw Stock*

In London there are held great auctions of imported stock, sold both for local consumption and for re-export. These sales are held at dates arranged among the importing factors, usually at the beginning of each year. Each auction is confined to one class of stock from a particular producing area.

The principal classes thus sold are the raw skins from South Africa, Australasia, and India and the tanned kips and skins of the latter country. In a few Continental ports there are auctions for the sale of imported raw stock of the modified type known as "inscriptions." They differ from the sales just described in consisting merely of the opening of sealed bids for lots which the buyers have had a chance to examine. The principal inscriptions are those for the sale of Dutch



East Indian hides and skins in Amsterdam and Rotterdam and of River Plate hides in Antwerp.

The London auctions of imported stock are still very important; but with the tendency of the American tanning industry to buy by preference hides and skins imported into the United States direct, together with other minor movements in the same direction, their consequence has somewhat decreased.

#### *The Medium-Sized Unit and the Dealer*

Outside the sphere of the great packing houses of the United States, Canada, the River Plate, and Australasia, and of the European auction system, we come to a large class of wholesale and retail slaughterhouses of varying size, from which consumers do not usually buy hides and skins direct. In most of these cases, at least one dealer intervenes, and the hides or skins sold change title and often actual possession at least once between the producer and the consumer. In the United States and Canada, this applies to a large though indefinite class of slaughterhouses below the rank of the great packing houses but doing more than a retail business. In Europe it applies to most slaughtering establishments in the chief centers of countries in which the auction system does not prevail—as in Scandinavia, Spain, Portugal, Italy, and Russia. In some other countries it is true chiefly of the establishments supplying the largest cities, like Mexico City, Buenos Aires, Montevideo, Melbourne, Sydney, Cape Town, or Johannesburg.

#### *The Retail Slaughterhouse and the Farm*

The special characteristic of the organization distributing the raw stock turned out by these classes of producers is the latter's dependence on the persons or firms who do the primary collecting. These collectors may be anything from local merchants specializing in hides and skins to peddlers and junk dealers. The hides and skins these persons collect may find their way, at the end of the next link in the chain, into the hands of specialized raw stock dealers in the great centers; but in the nonindustrial countries of this class they usually come, when they reach such centers, into the possession of exporting houses whose business is as unspecialized as that of the original collectors.

#### *The Distribution of Raw Stock Through Fairs*

As a special factor in the trade organization of a few countries in which most of the hides and skins are turned out by small producers, the periodical fair requires mention. Russia has been in modern times

the country best known for these institutions, and all the Russian fairs have been, and are likely to be again, important links in the assembling of the country's raw stock for export. But in the trade in some classes—particularly immature skins—the sharply seasonal production has made such periodical fairs important also in the case of Budapest and other centers in southeastern Europe and to some extent even in the west of the Continent, where in general the auction system prevails.

### *The Small Producer in Various Regions*

In Canada, Australia, and New Zealand, and in the main in Argentina, Uruguay, and Chile, we find the distribution of raw stock turned out by retail slaughterhouses and farms organized much as in the United States, with variations resulting from differences in the density of population, distances to markets, the scale of landholding, governmental policies, and racial traits. But in the remainder of Latin America, in eastern Europe, and in practically the whole of Africa, Asia, and the East Indies, collection through general traders and distribution through many-jointed systems of dealers and unspecialized exporting houses flourish in extreme forms. Often the primary collection is on a basis of barter. In many districts a traveling trader or glorified peddler is a powerful factor in the trade.

### *Indian Hides*

All country raw stock falls in the first instance into the hands of members of a submerged caste of Hindus or of the poorer sort of Mohammedans. The purchaser of the carcass usually flays the hide or skin himself, and then sells it to an itinerant dealer in country products, known as *bepari* or a *khoja*—also, as a rule, a Mohammedan of low degree. Payment in such sales is based only on size and general appearance, the stock being rarely weighed. This, of course, makes sharp practice easy, and matters are not improved by the fact that the *bepari* is ordinarily an agent of a larger dealer who keeps the buyer of the carcass in his power by granting him advances.

Some Indian raw stock is bought direct from the *bepari* or their principals by representatives of exporters or tanners, but the bulk of it goes through hands of several other middlemen. Eventually it finds its way to an *arathdar*, or storekeeper, in one of the larger centers, who receives country products generally and sells them on commission. He usually advances the last dealer 75% or 80% of the market value of the hides and skins shipped to him or, when competition is keen, even

more. The lots which he buys are unselected and may contain anywhere from 100 to 10,000 pieces.

### *The Output of Nomadic Tribes*

In the arid region of Asia and Africa inhabited by nomadic tribes, the original collection of hides and skins and the movement to the seaboard become more or less merged, the producing tribesmen bringing their stocks at intervals direct to the markets held in a few towns, though between the latter and a port of final exportation the goods may change hands several times.

### *The Organization at the Importing End*

In the ports of the United States where the import trade in hides and skins is handled, we may distinguish four types of firms engaged in it: (1) the general importer on his own account who handles hides and skins; (2) the specialized importer of raw stock on his own account; (3) the importing tanner; and (4) the importing broker. The first two handle their import business in an identical way, selling to tanners sometimes direct, but more often through brokers. The latter may be raw material brokers of the ordinary type or they may specialize in the selling of imported stock. All these importers buy on their own account from established connections in the exporting centers with which they deal and assume full financial as well as moral responsibility for the quality of goods they bring in. Ordinarily, they pay cash for their merchandise (except as it may be handled on a real or nominal consignment basis); but in some cases hides and skins, along with other commodities, are shipped them on running account as part of a miscellaneous import and export business.

Where hide and skin shipments are on a large scale but the exporting organizations are mainly unspecialized, as is the case in China, a large proportion of the incoming shipments are received by general importers.

Almost all the large unspecialized importing firms, usually called import commission houses, besides many smaller ones, handle some hides and skins. The services of brokers are particularly necessary for handling the sales of these concerns; but such middlemen are also, as a matter of fact, employed by the specialized hide and skin importers.

### *Importing Tanners and Brokers*

The importing tanner may do import business in the strict sense, buying himself from exporting houses or brokers abroad, direct or through branch offices, affiliated companies, or established agencies.



Much more widespread is the practice whereby a tanner places orders through an importing broker, who transmits them to an exporting house or broker abroad.

Outside the United States, importation by tanners, whether direct or through brokers, is exceptional. The smaller average size of tanning firms goes largely to explain this, while in Great Britain and the Low Countries the auction system provides markets in which buyers have some advantages they do not possess in the United States, and at the same time tends to stabilize and to discourage change in the trade organization at large. Mere conservatism in business methods also has its influence. A very few cooperative buying organizations of European tanners furnish the chief exceptions to these statements.

#### *Outstanding Characteristics of the Trade*

Two basic causes—the widely dispersed production and the pre-dominance of personal experience and judgment in the work of grading—make it hard to establish an integrated organization between the producer and the consumer of hides and skins. The element of personal judgment and experience in grading hides and skins leads inevitably to frequent disputes and the likelihood of the latter results, in practice, in one of four methods of dealing: (1) the purchase of flat lots with frequent, if not systematic, price penalization; (2) the purchase of more or less selected lots shipped on consignment; (3) the purchase through buyers sent to inspect stock beforehand; or (4) the limitation of transactions to firms long acquainted with one another, so that the buyer feels a high degree of confidence in the seller.

#### *The Position of the Broker*

Certain conditions of the hide and skin trade facilitate the survival of a middleman rarely approved by economists—the broker. The bulk and weight of raw stock in proportion to its value, the part played by personal judgment in grading it, the fact that it is hard and often disagreeable to handle, and the risk of its deterioration during long stowage or storage have something to do with this, for they make it desirable that hides and skins be moved about and change hands physically as little as possible. But the most important reason for the broker's position lies in the lack of specialization in the firms engaged in the trade—a lack almost complete in a majority of producing countries and extending to a large proportion of importing houses in the lands in which the modernized tanning industry is concentrated.



Under these circumstances, the broker is the specialist of the hide and skin trade. He finds and cultivates the contacts for the purchase of raw stock from producers to whom they are merely by-products, and for their sale on behalf of importers and dealers who handle them only as one of many lines. When the production of hides and skins has become concentrated in large establishments and the work of distribution has thereby grown more direct and simple, the importance of brokers' services diminishes.

### *Methods and Standards of Grading*

The grading or, as it is technically known, the *selection* of hides and skins is an art and not a science. It amounts to passing a personal judgment on each piece, having always in mind the innumerable defects that may characterize it with respect to take-off, cure, vermin infestation, brands, wounds, and imperfections, and the rest. Defects due to imperfect cure are likely to run through whole lots, making individual examination less necessary; but those of the other sorts mentioned may involve not merely an inspection of each piece, but actual counting or measuring of cuts, warbles, tick marks, scores, and scars.

Under these conditions, the passing of judgment on the quality of hides and skins cannot be mainly a matter of rule. The situation in this respect is perhaps sometimes exaggerated, as all markets in which grading is systematic have rules on some points, as on numbers of scores or warbles or the distance of a cut or score from the edge. There are publications, moreover, in which the rules of this sort followed in important markets, as well as their general practice with respect to other phases of the work, are set forth.

Classification as firsts implies good commercial hides and skins which will give a tanner little or no trouble. Classification as seconds means, as a rule, sporadic defects, such as cuts, scores, grub holes, tick marks, wounds, callouses, and so forth, to an extent involving some waste but not making a whole piece usable only for low-grade leather. Classification as thirds implies defects which may not prevent tanning but which make a whole hide or skin fit only for an inferior product.

## XII

### RAW FURS<sup>1</sup>

THE great market centers of fur trade are found in the world's greatest railroad terminals and cities of greatest population. Following are the world's greatest fur centers ranked in order of their importance:

- |              |                             |
|--------------|-----------------------------|
| 1. New York  | 6. Montreal                 |
| 2. London    | 7. San Francisco            |
| 3. Paris     | 8. Minneapolis and St. Paul |
| 4. St. Louis | 9. Vancouver                |
| 5. Chicago   |                             |

All of the above mentioned cities are, of course, terminal markets. There are, however, numerous local and primary markets. The local market is formed by the country storekeeper or local buyer of the community. There are three types of local buyers; they may be divided into three classes: village buyer, country buyer, and town buyer.

The country buyer travels from one trapper to another, buying skins. Not only does he buy from the trapper, but he often buys from the village buyer himself. The country buyer in his traveling about for furs accomplishes several things. In the first place, he finds a place to buy furs; second, he grades and sorts them; third, he concentrates and collects them; fourth, he may store them for a short while; fifth, he packs and ships them; and sixth, he finds a selling market in which he may dispose of his materials. It is obvious, then, that the country buyer performs a large number of distinct and separate functions necessary in the marketing of the goods.

The town buyer is in some respects similar to the raw fur house in the wholesale trade. He establishes himself in a certain town and waits for the trappers to come to him with their goods. Oftentimes the village and country buyer also come to him and sell him their values. In so far as he remains at one place and waits for the goods to come to him, he is different from the country buyer who goes out and buys goods. But in other respects he is closely similar to the country buyer, with respect to functions. He buys, grades and sorts, collects, stores,

<sup>1</sup>From an unpublished paper, "The Marketing of Raw Furs," by Solomon H. Shapiro, University of Chicago, 1919.

packs and ships, and finds a selling market. But he is far different from the country buyer in that his business is by far more extensive, covers more territory, and is all in all conducted on a larger scale.

In the wholesale trade there is but one recognized type of buyer and seller; he is the raw fur house merchant or, in other words, the broker. Of course, there are commission men, if one would so call the salesmen and buyers of the raw fur house merchant, who get paid a certain commission of their sales or purchases.

The brokerage concerns are large businesses having a great capitalization, numerous employees, and many representatives, both in the city and scattered through the country. The same is not true of their salesmen, who are all confined to one part of the United States. In their establishments they have specialists detailed to every step necessary in the process from buying to selling. As the furs come in, expert shipping men open the packages in such a way that no possible injury can come to the fur. Then expert graders grade and sort the skins.

In the fur trade, in a majority of the cases, the manufacturer is the retailer. Hence the trade organization with reference to the retail trade is very simple. The manufacturer, as above stated, buys his materials from the broker, relying almost exclusively upon the broker's grading, then takes them to his factory and manufactures the finished product. Oftentimes, however, the salesman of the broker visits the manufacturer and sells to him by sample. When the manufacturer has completed the product he then sells to the consumer. Thus the process of marketing from the broker to consumer is very simple. The broker sells to the foreign broker, who, in turn, sells to manufacturer and finally the goods get to consumers.

In the marketing of furs, for example, the transportation problem is not so highly important as in the case of other goods, for example, coal, where the freight charges are equal to about half the value of the material shipped. On account of the small size of the goods in comparison to its value, freight rates are of almost no consequence whatever in the marketing of the material. Transportation to the local market is still in a primitive stage. The trapper carries the furs to the local merchant either on his back, on horseback, or on a wagon. The country merchant, too, may go from trapper to trapper carrying his goods on his back or by horse and wagon.

Occasionally, though very rarely, a load of furs is shipped by freight—this usually in the case of a raw fur house sending out an order for export.

### XIII

#### LEAF TOBACCO<sup>1</sup>

THE marketing of tobacco varies considerably in different tobacco producing sections of the country. In general, there are three methods—the auction system, farm selling, and cooperative marketing.

The auction system is practiced principally in Maryland, Virginia, North Carolina, South Carolina, Georgia, Tennessee, Kentucky, West Virginia, southern Ohio, Indiana, and Missouri. Most tobacco produced in the cigar-leaf sections of Wisconsin, Ohio, Pennsylvania, Florida, Georgia, and the Connecticut Valley is marketed on the farm. Cooperative marketing is practiced more or less in every tobacco producing section of the country. There is only a small amount of tobacco that is not marketed by one of these methods.

#### THE AUCTION METHODS OF SELLING

Tobacco is sold at auction in three ways—by publicly selling loose or unpacked tobacco to the highest bidder, by publicly selling in packed form to the highest bidder, and by closed bid auction of packed tobacco.

##### *The Loose Leaf Auction System*

The first method, often referred to as the loose leaf auction system, is the method by which the majority of tobacco produced in the United States in the past two decades has been sold. Practically all the auction markets of the country operate on the loose leaf auction plan, with the exception of Baltimore, which is a packed tobacco market operating under the closed bid auction plan, and Louisville, which is a packed tobacco market operating on the public auction plan. The market at Cincinnati, Ohio, is operated principally on the loose leaf auction plan, but it has also a public auction market for packed tobacco.

As a rule, the tobacco is taken to the loose leaf auction market on the laths, where each lot is stripped from the laths and placed in a large flat-bottomed basket. The baskets containing the tobacco are

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<sup>1</sup> From W. W. Garner and others, "History and Status of Tobacco Culture," United States Department of Agriculture, *Yearbook*, 1922, pp. 433-444.



then weighed and arranged according to quality in rows on the floor of a loose leaf auction sales warehouse. In some markets, instead of using baskets, the lots are merely weighed and placed in piles on the floor of the warehouse. On each basket or pile is placed a ticket showing the name of the farmer who owns the tobacco, the number of pounds contained in the lot, and the consecutive number given to the lot. The tobacco is then sold, in piles or lots ranging from 10 to 1,500 pounds, to the highest bidder at public auction. As the sale proceeds from basket to basket, a clerk of the warehouse enters on each ticket the price per pound at which the tobacco is sold, the name of the buyer, and the grade assigned to the lot by the buyer. As a rule, the buyers for the large companies are governed in their bids entirely by their private grades, so it becomes largely a matter for the buyer on the auction floors first to determine to which of his grades, if any, a certain lot of tobacco belongs. Having determined the grade, he knows the limit that his company allows him to bid on the lot. Each buyer or manufacturer has for his own use a private system of grades. After the tobacco once leaves the farmer's hands, it is handled almost entirely by grade.

In some of the larger markets, the sales proceed very rapidly. In many markets the local board of trade requires the auctioneer to sell as high as 240 lots of tobacco in an hour's time. After the sale is over, the farmer has the right to refuse the price offered, in which case he can either have the tobacco put up at auction the second time or have it removed from the warehouse for sale elsewhere. If the price offered is accepted, the auction sales warehouseman renders the farmer an account, showing the number of pounds and the price of each lot sold, and gives him a check for the total amount of the sale, less the warehouse charges, which usually include an auction fee, a weighing charge, and a commission for selling.

Each buyer removes the tobacco purchased by him from the auction sales warehouse to a redrying plant or packing house, where the tobacco is placed in a safekeeping condition and packed into hogsheads, ready for storage or shipment. A large percentage of the tobacco is bought direct by the manufacturer, in which case the tobacco, after being conditioned and packed, is usually shipped to the private storage warehouse of the manufacturer, where it remains in storage until it is ready to be manufactured. The large amount of tobacco bought for export trade is shipped abroad for storage. Most of the independent buyers have their tobacco stores in public storage warehouses, where the tobacco is

held for resale. In such cases, tobacco is usually resold on samples which are taken from the hogsheads of tobacco while in storage.

#### *Selling in Packed Form at Public Auction*

Tobacco to be sold at public auction in packed form is prepared by the farmers in the same way as tobacco to be sold under the loose leaf system, except that it is packed into hogsheads or tierces containing from 500 to 2,000 pounds and then shipped to sales warehouses. When tobacco is offered for selling, the packages are arranged in rows on the floor of the warehouse in very much the same manner that baskets are arranged on the floor of a loose leaf auction warehouse. The packages are then opened up in a manner that will not disturb the form of packing. The tobacco is then sold at public auction as the buyers pass from lot to lot, examining and bidding on the tobacco. When the sale is over, the lots are placed back into the same containers and returned to storage, where the tobacco is held for resale or manufacture by the new owner.

#### *The Closed Bid Auction Method*

Under the closed bid auction plan, the packages are prepared in the same form as when the tobacco is sold in packed form, but the containers are opened up and sampled when they are received at the warehouse. Samples are made up of from four to nine hands drawn from different parts of the package and are labeled to preserve the identity of the sample and sealed to prevent substitution. At some warehouses these samples are drawn and sealed by persons who are licensed by the United States Warehouse Act for the purpose. The samples are then displayed by the broker or commission merchant to whom the tobacco was consigned for sale. Each buyer enters on a slip of paper, opposite the number of each sample, the price per pound which he is willing to give for the lot represented by the sample and drops it into a box. At the end of the day the lot is sold to the buyer who offers the highest price.

### FARM SELLING OF TOBACCO

Possibly next to the auction sales method of selling tobacco the most general practice is to sell the tobacco on the farm to buyers who visit producing districts. In most sections in which tobacco is thus sold, the farmer makes little attempt to assort his tobacco with respect to quality. As soon as the tobacco is cured, the farmer watches an opportunity when he can find the tobacco in a natural condition, soft enough to be

handled without breaking. He then takes the tobacco down from the barns or sheds, strips the leaves from the stalks, and ties them roughly into large hands, which are packed into bundles of approximately 100 pounds each. Usually, before the tobacco is taken down from the barns or after it has been placed into bundles, it is examined by country buyers and bought, but very often it is bought at a general average price without being examined. The tobacco is then delivered to a place designated by the buyer, where the bundles are opened up, the hands untied, and the tobacco assorted according to the buyer's grades. The tobacco is then retied into hands and conditioned for storage. After conditioning, the tobacco is ordinarily packed into cases averaging about 300 pounds and placed in storage warehouses.

After the tobacco has passed through the spring sweat, the cases are opened up and sampled, at which time it is offered for sale to the manufacturer. The tobacco is usually sold by the dealers according to the quality of each lot, whereas the farmer sells the tobacco unasorted for a general average price. In some instances the tobacco is bought by representatives of the manufacturer direct from the farmer, in which case the manufacturer has the tobacco assorted and packed for storage in the same manner that is ordinarily practiced by the independent country buyer. The contract method of buying is practiced to a large extent in many of the cigar-leaf producing sections. Very often the country buyers purchase a large percentage of the year's crop before it is harvested, the farmer agreeing to deliver the tobacco after it is produced, cured, and packed into bundles.

In all sections in which farm selling is practiced, the farmers have practically no conception of tobacco grades, and very few realize the wide variation in the prices of tobacco of different qualities. Their main source of information as to the value of tobacco is the price received by neighbors, which is usually a flat price of so many cents per pound for all qualities of tobacco. The farmer who sells his tobacco at an average of 30 cents has very little idea what proportion of it has a market value of from 3 to 5 cents a pound and what from 80 to 90 cents a pound. This is due to the fact that there are no standard grades by which the farmer can be governed. With tobacco varying in price from one cent to two dollars a pound, it is not practical for a farmer to estimate with any degree of accuracy the market value of his tobacco without the use of some uniform system of grades. Neither is it possible for market quotations to be of much value without standard grades.



## COOPERATIVE MARKETING

Cooperative marketing has followed principally three general lines: Cooperative packing, cooperative sales agencies, and cooperative pooling.

*Cooperative Packing*

In many sections, farmers have found that it was impracticable for them to pack their individual crops for storage because they were unable to employ expert sorters and also on account of the small size of the lots of tobacco of a particular quality that would be produced on a single farm. To own and operate cooperative packing houses where the tobacco could be assorted into lots of like qualities by trained men has proved of advantage. In this way, the farmers were able to pack complete cases or hogsheads of tobacco of similar quality, whereas in individual packing it would be necessary in most instances to mix the different qualities in order to fill cases of commercial size. The packing houses as a rule have not been altogether successful, perhaps because they were not able to operate continually from year to year. In years in which there was little demand for tobacco, the packing houses had more tobacco than they could conveniently care for, while in other years, when the demand and prices were good, the farmers would sell their tobacco direct to the dealers and manufacturers without packing, leaving the packing houses idle. Ordinarily, no special provisions were made for the sale of the tobacco which was jointly packed in this manner. Each farmer or group of farmers interested in a particular packing was required to be his own sales agent.

*Cooperative Sales Agencies*

In some sections, farmers organize cooperative sales agencies in connection with their packing houses. These agencies sell the tobacco that is cooperatively packed by the farmers. In practically all cases the individual farmer reserves the right to accept or reject the price offered to these agencies, and in most cases the individual farmer is allowed to sell his packing independent of agencies. However, this is limited to some extent in some agencies by requiring the individual producer when selling his tobacco independently of the agency to pay a fee to the agency. In other sections the agencies were formed independent of the cooperative packing plants. In these sections the individual farmer usually does his own assorting and packing and ships his tobacco to a storage warehouse under consignment to the cooperative selling agency.



The cooperative agency in this particular instance performs the function of a commission merchant.

### *Cooperative Pooling*

The most common form of cooperative marketing that is practiced is cooperative pooling. Pools have been formed in practically every section of the country in which tobacco is produced. Until recent years, the pooling idea has been worked out on a small scale in most sections, but during the last two years several large pools have been formed. These large cooperative pools have absorbed a number of the small pools, and one of the principles on which they are formed is to control a large percentage of the production in certain areas. In organizing a pool of this kind, from 50% to 75% of the tobacco produced in a particular section is determined upon as a goal, and the organization is not put into operation until this percentage of the tobacco has been pledged to the pool by individual farmers who sign contracts. In these contracts the farmers agree to sell and deliver their entire crops of tobacco for a certain number of years to the pool, or cooperative association, which will sell the tobacco and make returns to the farmers after deducting all operating expenses. These cooperative associations are organized without capital stock.

To secure the necessary funds to pay for the operating expenses of the association and to make advances to its members, the association borrows on its notes, which are usually secured by warehouse receipts showing the type, form, grade, weight, and condition of the tobacco, and the obligations assumed by warehouseman. The grade or other class of the tobacco shown on the warehouse receipts, if issued under the United States Warehouse Act, are usually taken from an official inspection, grade, and weight certificate issued at the conditioning plant. This is done in order to save opening up the tobacco after being received into storage, which is not only expensive but causes considerable damage to the tobacco.

The associations found that in many cases the number of public storage houses available was not sufficient to take care of their storage requirements, and it became necessary to organize subsidiary warehousing corporations to perform this function. These corporations are organized as a rule with sufficient capital stock to purchase, own, and operate storage warehouses. In some cases, these subsidiary corporations own and operate redrying and conditioning plants in connection with the operation of storage warehouses, and in other cases they own

and operate assorting and packing houses in which the tobacco is prepared for storage.

Under the pooling plan, the tobacco is assorted and tied into hands by the individual farmer and delivered to the receiving warehouses of the association at such times and places as it directs. As the tobacco is received into the warehouses of the association, it is weighed, placed into baskets, and tagged in the same manner as in the case of the auction system, but instead of selling it at auction the baskets are graded by expert graders who are employed by the association. Each farmer is given a statement showing the grade of the tobacco delivered. The amount of this advance is governed by the association and proportioned according to the particular quantity of each grade delivered to the association.

The association has full jurisdiction over the tobacco after it has been received and may condition, warehouse, or sell it at will. A certain percentage of the tobacco as a rule is sold direct to dealers and manufacturers from the loose leaf receiving floors of the association. The remainder of the tobacco is shipped by the association to conditioning plants, where it is conditioned and packed into hogsheads or cases for storage. As the tobacco is packed, it is inspected, regraded, sampled, and weighed by competent and reliable persons, many of whom are licensed for the purpose under the United States Warehouse Act. It is then delivered to public storage houses, many of which are also licensed under the same law.

### RECENT COOPERATIVE DEVELOPMENTS<sup>2</sup>

About two-thirds of the entire tobacco crop in the United States is produced in Kentucky, Virginia, and North and South Carolina. In this region there have been formed within the past few years three separate organizations of growers for the purpose of cooperatively marketing tobacco. These are the (Tri-State) Tobacco Growers Cooperative Association, an organization of Virginia, North Carolina, and South Carolina growers of bright southern flue-cured tobacco, and of the growers of Virginia dark-fired and sun-cured types, with headquarters at Richmond, Virginia; the Burley Tobacco Growers Cooperative Association, an organization of growers of burley tobacco, with

<sup>2</sup> From *Report of the Federal Trade Commission on the Tobacco Industry*, in response to Senate Resolution No. 329, Sixty-eighth Congress, Second Session, Government Printing Office, 1926.

headquarters at Lexington, Kentucky; and the Dark Tobacco Growers Cooperative Association, covering the sections of Kentucky and adjacent states where dark western tobacco is grown. The headquarters of this association is at Hopkinsville, Kentucky.

It was developed that many of the auction warehouse concerns, particularly the members of the Virginia-Carolina Warehouse Association and the Eastern North Carolina Warehouse Association, had opposed the cooperative association; also that certain tobacco boards of trade and tobacco trade journals had sought to impede the success of the cooperative. These groups were investigated and their records examined to determine whether or not any part of their activities against the association was being supported or encouraged by the American Tobacco Company or the Imperial Tobacco Company.

The organization of these associations developed from a widespread demand among farmers for a change from the old methods of marketing their tobacco. Under the private auction warehouse system, crops were practically "dumped" on the markets within a short selling season under conditions largely controlled by the buyers. Practices under this system were regarded by the growers as unjust and unfair, tending to manipulation against the smaller, more helpless farmers. Discrimination between growers and undue variations in prices were facilitated, it is claimed, by the absence of a uniform system of grading. Prices received by farmers were generally unsatisfactory except during the war period.

The proportion of tobacco marketed through the new cooperative associations has varied in the different sections and on the whole has tended to decrease rather than increase since the beginning of these organizations. The receipts of the Burley Association have ranged during the four years of its operations from 54% to 75% of the total burley crop. The Dark Association has handled slightly more than 50% of the types grown in this region except in 1924, when its receipts were only 36% of the total crop. The Tri-State Association, in 1922, received 35% of the total production of the bright southern, Virginia dark, and Virginia sun-cured types; of the 1923 crop it received 28% and of the 1924 crop 23%.

The tendency of the members of the (Tri-State) Tobacco Growers' Cooperative Association to violate their contracts and to divert in one way or another to the auction market tobacco pledged to the pool increased steadily during the three years. It is significant, however, to note that this association, which was launched on the basis of a



minimum delivery of at least 50% of the total crop, the first year received only 35% of the total crop. Widespread dissatisfaction and defection in the membership of this cooperative was manifested the first year.

There is considerable evidence to indicate that among the important causes of nondelivery of tobacco to the association were the long wait for full cash returns and the general belief among members that leaf tobacco marketed over the auction floors brought higher returns to the growers than that which was delivered to the pool. The records show that payments and final settlements subsequent to the first cash advances have been delayed generally from several months to two years or more. Data secured from the association and from other sources tend to show that on the whole the average price paid at auction markets was somewhat higher than that which was returned to growers who delivered to the pool. This is admitted by the association and is alleged to be due to the difference in the grades of tobacco handled. The officials of the association also contend that the higher prices paid nonmembers or to members whose contracted tobacco had been diverted to the auction floors, represent excessive prices paid for the purpose of embarrassing and disrupting the membership of the association.

The principal opposition to the association has come from private auction warehousemen, certain tobacco boards of trade, and other affiliated interests. In various effective ways these antagonistic interests have opposed the pool.

This failure to sell in the green state a larger proportion of its 1924 deliveries to exporters and dealers was obviously designed by the association management to exclude such customers as purchasers of its green tobacco. Instead of holding or increasing its large clientele of buyers who purchased in the green state more than half of this association's first year deliveries, its officers later began an arbitrary policy of restraint and exclusion which reached its climax in 1924. Exporters and dealers were in 1924 in effect actually prohibited from purchasing association tobacco in the form in which they preferred and were equipped to buy it. The association explains that this policy was not adopted with the intent to exclude dealers, but as a means of preventing resales on the auction markets.

The policy of excluding exporters and dealers as purchasers of green tobacco resulting in larger shipments to redrying plants manifestly benefited a number of the cooperative's officials, including the majority of its sales staff and several directors through their financial



interests in redrying plants. An examination of the records of the association and data from other sources disclosed that at least 27 officials were financially interested in and were deriving profits from a number of plants engaged in redrying association tobacco.

A contrast in redrying policies is seen in a comparison of this association with the Burley Tobacco Growers Cooperative Association. The latter owns its redrying and storage plants, which it reports, "have already paid for themselves in the actual cost of redrying and storage, as compared with what it cost for redrying and storage in outside redriers and warehouses."

It does not appear that the difficulties and impeded progress of the organized growers of tobacco in Virginia, North Carolina, and South Carolina are due either to alleged oppressive hostility on the part of the American Tobacco Company and the Imperial Tobacco Company or to marketing problems inherent in the cooperative system. The apparent success of the Burley Association and of organization of growers in other tobacco regions would indicate that cooperative marketing of leaf tobacco is generally successful.

### CLASSES AND TYPES OF TOBACCO<sup>3</sup>

As is well known, tobacco is manufactured into various forms for consumption, but large quantities also are exported in an unmanufactured state, so that we may distinguish three general classes of tobacco: (1) Cigar tobaccos, (2) export tobaccos, and (3) manufacturing tobaccos. By manufacturing tobaccos are meant all types used in manufactures other than cigars. The manufacturing and export classes, however, have much in common as regards cultural methods.

Each of these three classes of tobacco may be subdivided into types, depending on their special uses, methods of growing and curing, or on the variety of seed used. In the case of cigar tobaccos, there are three principal types, corresponding to the three parts of the cigar—wrapper leaf, binder leaf, and filler leaf. In the manufacturing and export tobaccos are such types as the flue-cured, Virginia sun-cured, White Burley, dark fire-cured, and so on. These various types are produced on certain special types of soil and according to definite methods of growing, curing, and handling the crop. In some cases, the variety of seed used is also an important factor.

<sup>3</sup> From W. W. Garner, *Tobacco Culture*, United States Department of Agriculture, Farmers' Bulletin No. 571.

## XIV

### LIVE STOCK

#### DEVELOPMENT OF AMERICAN MARKETS<sup>1</sup>

##### *Early Market Methods*

Before modern systems of transportation were developed, the small producer of live stock sold as best he could, usually to nearby consumers. Most towns had a butcher who would visit farms where there were animals for sale, and would buy a cow or a steer, or a hog or two, which he would kill at his own slaughterhouse. The meat was usually peddled out, the little covered one-horse butcher's cart being a familiar sight in days gone by. Some farmers during the winter months would slaughter animals at intervals and dispose of the meat among neighbors, a custom still in vogue in some localities. Many farmers cured their own bacon and hams in addition to putting down salt pork and corned beef. Supplies for cities and towns were brought in and sold to the slaughterhouse by drovers. The word "drover" is practically obsolete at the present time except as it continues in the names of some of the old established stockyards institutions, as drovers' banks, drovers' hotels, and the like. It was the drover who went out into the country buying up a steer at one farm, a cow at another, an old bull at some other place, and here and there a calf. Collecting together a small bunch of stock, he drove it (hence the name "drover") to the city, where it was sold to the local butcher. Small numbers of sheep and lambs were handled in the same way, and occasionally hogs, but it is needless to add that they were not the short-leg and fat lard type of the present day. It was nothing unusual for cattle to be driven from Ohio to Baltimore, Philadelphia, and other seaboard markets. They were even driven from as far away as Kentucky over a route 800 miles long. Buffalo received cattle even from the Mississippi River. There was no competition at any point in the trade.

The larger towns were plentifully supplied with fresh pork during the winter months by farmers who would slaughter one or more hogs

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<sup>1</sup> From Arthur C. Davenport, *The American Live Stock Market, How It Functions*, Chicago, Drovers' Journal Publishing Company, 1922.

at a time and haul them to town. This method is still quite prevalent in sections of the South that have no convenient outlet to a packing center. The farmer will drive to town and make the rounds of the prospective buyers of pork. He may sell half a hog to the little meat market and perhaps the other half to the hotel. He will return home and that night at sundown, after the air has cooled off, kill and dress a hog. Before sunrise the next morning he will be on his way to deliver the hog, half to the hotel and half to the market. Under this system, in a sparsely settled district, it takes two days to market a hog, and the price dressed is usually lower per pound than live hogs are bringing at the big central markets. The difference in quality may account for part of the difference in price.

### *The Beginning of Central Markets*

As the population of cities along the eastern seaboard, such as Baltimore, Philadelphia, New York, Albany, and Boston, increased, the local consumption of meats became large enough to create at those points a sufficient demand for meat animals to give them markets of considerable importance. The development of railroads and other means of transportation furnished better methods for distribution of the product, which was limited largely to the merchandising of cured meats. It was not until 1852 that any attempt was made to ship cattle by rail even in an experimental way, and it was several years later before that method of moving stock became at all common. In fact, very little live stock was hauled by the railroads until after 1860.

The extension of the railroads westward into sections especially adapted to grazing made possible the rapid expansion of the live stock industry, a movement that was greatly stimulated by the Civil War demand for meat animals to feed the soldiers at the front. New markets sprang up in the West which at first were little more than concentration points where the stock was sold and forwarded on hoof to other points for slaughter. Packing houses followed later on, and thus the foundations were laid for the great centralized markets of the present day.

### *The Passing of the Drover*

The drover moved westward, following the producer, and, operating in territory beyond the transportation lines, bought live stock from settlers and drove it to market or to the railroads. A few hundred miles was nothing to those men, fording or swimming their droves across the dangerous streams, braving storms and thieves, and over-



coming difficulties that would have driven men less resolute out of the business. Arriving at the market, they were forced frequently to herd their stock for days in the open because the stockyards were not supplied with sufficient pens to take care of all arrivals. The further extension of the railroads deprived the drover of his business. His successor was the "shipper," who buys stock at the local stations and ships it by railroad to market. Of late, the "shipper," in his turn, has been forced out at many points by the growing custom of the producer's shipping his own stock, either as an individual or through a cooperative shipping association.

### *The Texas Trail*

When the great trunk lines were extended across the continent, they opened up vast tracts of splendid grazing lands, reaching from Texas to the Canadian line and from the narrow fringe of settlements along the western banks of the Missouri River to and beyond the Rocky Mountains. Texas was the great breeding ground for cattle, which were driven from Texas to the northern feeding grounds, where they were kept a year or more and finally shipped to market by rail. It took the greater part of the season to drive a bunch of cattle from Texas to the northern range, and the route over which the cattle passed came to be known as the Texas Trail. There were many other trails, all of them leading eventually to the big trunk lines that finally carried the cattle to the rapidly growing cattle markets.

### *Markets Move Westward*

The settlement of the great prairie states of the Central West especially suited to stock growing caused a rapid and enormous increase in the production of live stock of all kinds. As the center of production moved westward, the markets followed. Buffalo became a market intercepting business that would have gone previously to the older seaboard markets. Cincinnati also came to be an important market and the center for a large pork packing industry. As early as 1833, Cincinnati was credited with the slaughter of 85,000 hogs, and the total for the year 1863 reached 608,000.

### *The "Big Four"*

The four markets destined to exert a dominating influence on the live stock trade of the whole country, even the smallest of the four being larger than any other markets in the world, grew rapidly with the development of the Central West. Chicago, the largest of the four,



opened its first stockyards, known as the Bullhead Yards, in 1848, but the present yards were opened in 1865. The Kansas City Yards began business in 1871. The present National Stock Yards, located on the Illinois side of the river but known as the St. Louis market, opened in 1872. Omaha followed in 1884. Many smaller markets have sprung up in all sections until the Pacific Coast has been reached.

In very recent years a strong effort has been made to give the old southern states better market facilities, and packing houses have been located at various points. Several promising markets have been established, such as Oklahoma City, Nashville, and others, but thus far the South, outside of Texas, which has a good market at Fort Worth, has no large centralized markets. This is because live stock production in that section of the country is not on a sufficiently large scale.

#### *Foreign Live Stock Markets*

There are no large centralized markets in Europe to compare with the big American markets. The danger of spreading contagion, such as the hoof-and-mouth disease, and other causes, have prevented the free movement of live stock to a considerable extent, thus giving the markets more or less a local character. Still, there is quite a trade between those countries producing a surplus of meat animals and others that because of climatic conditions have scanty pasturage and are forced to depend upon imports for part of their meat supplies.

While South America has no markets equal to those in the United States, the live stock industry is developing very rapidly on that continent. American packers are operating plants in Argentina, Brazil, Uruguay, and Paraguay, while there is also a large investment of British and other capital.

Australia and New Zealand are developing a large live stock and meat industry, in which American packers have taken some part.

The rapid development of the live stock and packing industries in other countries and the interest taken in this development by American packers have given rise to grave fears that the live stock industry in the United States may suffer in consequence.

### MARKETING OF BEEF CATTLE<sup>2</sup>

#### *Westward Movement of the Beef Cattle Industry*

As better markets developed in the East and cheap grazing lands

<sup>2</sup> From E. W. Sheets and others, "Our Beef Supply," United States Department of Agriculture, *Yearbook*, 1921.

were opened in the West and in remote sections of the eastern states, eastern cattle feeders depended more and more on the drovers for their supply of cattle. Cattle from the grazing regions of the West were driven East across the Allegheny Mountains in the fall. Shorter drives were made from the grazing regions of northern and central Pennsylvania and from northern New York and New England. Feeder cattle arriving from the West in the fall were fattened during the winter and spring months and marketed before the western fat cattle began to arrive. Stockmen who lived near the large cities had a decided advantage in case of a temporary rise in prices, as they could drive their cattle to market in a short time.

The early settlers in the Ohio River Valley found that large crops of corn could be raised very cheaply. As they had no remunerative market for this corn, they fattened cattle, drove them to the eastern markets, and competed successfully with cattle feeders of the East.

Driving cattle to the New Orleans market from Texas began in 1842. In 1846, 1,000 head were driven from Texas to Ohio. Thenceforth, driving of Texas cattle northward gradually increased, but did not become a well established business until after the Civil War, which had left a great surplus in Texas and a scarcity in the North.

Boston was probably the first centralized live stock market in the country, records indicating that as early as 1638 cattle were driven from New Hampshire to Boston to be marketed. The Dutch at New Amsterdam, which is now New York City, the Quakers at Philadelphia, and the English Catholics at Baltimore each established cattle markets at an early date. It is noteworthy that all these early markets have functioned continuously down to the present time, despite the westward movement of the beef cattle industry.

### *Modern Methods*

Many methods are used by the producer in marketing beef cattle, but most of them may be grouped under six or seven general heads. The principal systems, listed in the probable order of their relative importance, are as follows:

1. Selling to country drover for shipment to central markets
2. Shipping to central markets through cooperative association
3. Shipping to central markets direct
4. Direct marketing to local butchers
5. Selling direct: (a) Selling direct to packer-buyer, or speculator in the country; (b) Shipping direct to the packing house
6. Slaughtering on farms and selling as carcass meat

7. Special forms of marketing, such as (a) auction sales, (b) selling on the range to cooperative purchasers, etc., (c) selling on mail orders

From one-half to three-fourths of the beef cattle marketed in the United States pass through central markets. In 1916, central markets received more than 71% of the beef cattle marketed, and in 1917, 76%. Since then, there has been a slow but steady decrease in the percentage of cattle disposed of through public stockyards. In 1918, about 75%, in 1919, 74%, and in 1920, 70% passed through public stockyards.

Shipping to central markets by producers has always been the favorite method of large-scale producers. The range cattleman or the Corn Belt feeder who has anywhere from a few carloads to several trainloads of cattle to market at one time usually prefers to take his own stock to market, rather than patronize either the country drover or the cooperative shipping association.

The local butcher has always provided an important outlet for cattle. His nearness to the producer gives him certain advantages, but during recent years this advantage has been somewhat neutralized by the economy of large-scale slaughtering and the extension by the big packers of the peddler car system.

### *Seasonal Movements of Cattle*

An important characteristic of the movement of cattle through public stockyards is the seasonal variations. Both range and pasture cattle are marketed when the pasture season ends, while the bulk of the cattle from the Corn Belt go to market from three to four months after they are put on feed. Since probably 75% of the cattle marketed are grass cattle, it is obvious that their movement represents the peak for the year.

A tabulation of cattle and calf receipts at all public markets for five years shows that October is, on the average, the month of heaviest marketing, November second, and September usually third. As a rule, February is the lightest month, partly due to the fact that it is the shortest month but more particularly because it comes between seasons. By that time the grass-fed cattle have all been marketed and only a few of the grain-fed cattle are ready for market.

### *Stockers and Feeders<sup>3</sup>*

Not all cattle marketed are converted immediately into beef. About

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<sup>3</sup> From E. W. Sheets and others, *loc. cit.*, United States Department of Agriculture, *Yearbook*, 1921.



20% of all cattle and calves received at the 67 markets during the five years 1916 to 1920, inclusive, were returned to the country for further feeding. Kansas City ranked first as a stocker and feeder market, with an average annual movement of approximately 942,000 head. Omaha was second with 545,000, and Denver third with 415,000. Chicago, which in all previous classifications had occupied first place, dropped to fourth with respect to stockers and feeders handled, with average annual shipments of 388,000 head.

## HOG MARKETING<sup>4</sup>

### *Importance of Hogs*

Hogs are produced on three-fourths (75.2%) of the farms in the United States and represent over 10% of the value of the nation's agricultural production. Hogs in the United States are closely connected with the corn crop. Nearly two-thirds of the commercial production of pork is in that portion of the United States known as the Corn Belt.

The hog never has been well suited to being driven long distances to market, though this deficiency has been due to causes which varied with the development of the hog industry. In the early days, when the hog was a longer-legged and more rangy animal than he is today and carried far less fat and total weight, although capable of traveling considerable distances and at a fair speed, he was usually so wild that it was almost impossible to herd him satisfactorily. When later the type of hog was changed to that of an animal of comparatively short legs and carrying a large amount of fat and weight, he became incapable of traveling any great distance, particularly in warm weather. For these reasons, the hog has generally been slaughtered and dressed not far from the place of production.

It was this fact which largely accounted for the rapid development of Cincinnati as a hog packing center during the first half of the nineteenth century. Between 1815 and 1830, the Ohio Valley was the most important hog raising section of the United States, and Cincinnati became world famed as a pork packing center.

At Chicago, pork packing first became an important industry about 1832. Owing partly to its location on the chain of Great Lakes, which made it possible to send dressed meats East by water, Chicago developed rapidly as a packing center. The first shipment of live stock by rail occurred about 1852, the stock being loaded in ordinary box

<sup>4</sup> From United States Department of Agriculture, *Yearbook*, 1922.



cars. In this shipment no provision was made for feeding, watering, or ventilation. During the season of 1861-62, Chicago packed over 500,000 hogs and for the first time passed Cincinnati. From that time to the present, Chicago has maintained her position as the leading live stock market and pork packing center of the United States. About 1868, the transportation of meats under refrigeration began to be used. This revolutionized the meat industry, for it enabled the packers to slaughter the animals in the West and ship the meat under refrigeration to the consuming markets in the East. As population pushed westward and the limits of the Corn Belt expanded, other live stock markets were established at St. Louis, Kansas City, Omaha, South St. Joseph, and Sioux City.

The relation between the freight rates on dressed and live hogs is influential in determining the location of meat packing centers. The higher the freight rates, the nearer the points of slaughter will approach the centers of production. The ease of shipping dressed meats is another factor affecting the location of packing centers. It is much easier to transport pork and pork products than it is to load, unload, feed, and water live stock. For these reasons, a large proportion of the hogs are slaughtered close to the producing areas.

The more important present-day methods of marketing may be listed as follows:

1. Producer shipments:
  - a) To central markets
  - b) Direct to packers
  - c) Slaughter and sale of products by farmers
2. Local sale:
  - a) To the country drover
  - b) To the packer buyer
  - c) To local butcher
3. Cooperative marketing:
  - a) Through shipping associations
  - b) Through auction sales

### *Producer Shipments*

Some producers ship their own hogs in carload lots. Such shipments may go either to a central market or direct to a packing house. A survey made in 1914 and 1915 indicated that of the total hogs marketed, the percentage shipped to central markets directly by producers ranged from none in most of the New England states to as high as 57% in Wyoming. The New England states and Wyoming, however, are

not important hog producing states. In the Corn Belt, where most of the hogs are raised, the percentage shipped to market by the producer ranged generally from 15% to 24%, with Nebraska reporting as high as 35% so marketed.

Most of the hogs sent by producers directly to market are consigned to the stockyards, but some producers and shippers ship direct to the packing house, thereby eliminating stockyard charges. This is not an important method of marketing, except in certain sections.

#### *Price Fluctuations*

Sudden and wide fluctuations in price constitute one of the most important problems of marketing hogs. Such fluctuations will be considered in three general groups: Daily, seasonal, and cyclical.

Daily fluctuations are those which occur at all markets from day to day and even from hour to hour. Such daily price changes may range all the way from five cents to as much as \$1 per 100 pounds. The hog market is probably the most sensitive of the important live stock markets. This is partly due to the fact that it has been more highly developed and subjected to greater refinement than has either the cattle or the sheep market. As has been stated, pork products enter into world markets; consequently, prices respond very quickly to changed economic conditions in almost any part of the world.

Seasonal price fluctuations are those which occur rather regularly at different seasons of the year. Under normal conditions, such price movements follow rather well defined courses year after year. A study of weekly average prices of hogs on the Chicago market for 21 years, 1901-1921, shows that September stands out as the month in which the highest prices of the year occur more frequently than at any other time. In the same measure, December usually records the lowest prices. In general, these price movements correspond rather closely with fluctuations in supplies. Generally speaking, the month of lightest supplies usually develops the highest price, although peculiar conditions sometimes arise which upset this normal relationship.

Hog prices really develop a double cycle each year. In other words, there are two points during the year when prices swing upward and then downward. The spring rise usually begins as soon as the heavy winter marketing is over and reaches its peak in April or May. This is followed by a spring or early summer decline, which usually culminates in May or June. Prices then generally advance until the peak is reached in September, after which prices normally break rather sharply

until the low point of the winter decline reaches as low a point as that in the winter. Breeding operations on which the pig crop depends are largely responsible for this double yearly cycle of hog prices. There is still a third movement of hog prices which extends over a longer period of time, usually of three to five years' duration. During the past twenty years there have been apparently five of these major cycles.

### SHEEP<sup>5</sup>

#### *Marketing Sheep and Lambs*

Although very early in the history of America some sheep were slaughtered, the production of mutton was merely incidental to the major enterprise of producing wool with which to clothe the colonists' families. For many years there was a decided prejudice against mutton as food. This prejudice still exists to a marked degree in many rural communities, particularly in the more sparsely settled portions of the South and Central West. Apparently this prejudice is due largely to inefficient and unsatisfactory methods of slaughter and dressing.

The consumption of mutton increased greatly after 1870. This increase was due partly to improved methods of slaughter, but chiefly to the development of artificial refrigeration and more particularly to refrigerated transportation.

*Receipts at the Public Stockyards.* From 30% to 90% of the sheep and lambs marketed in different sections of the country are sent to public stockyards; probably in the country as a whole, fully 75% of the marketing is conducted in this manner. Although practically every public stockyard handles some sheep, as might be expected, the bulk of the offerings goes to those markets which are either located nearest the areas of production or are situated on the direct route from the producing areas of range states to the consuming centers along the Atlantic seaboard.

As is true of other classes of meat animals, a very large proportion of the sheep and lambs marketed passes through a few of the larger markets. For example, during the nine years from 1915 to 1923, five markets, Chicago, Omaha, Denver, Kansas City, and Jersey City, received more than 54% of the total number of sheep and lambs sent to public stockyards in the country. Of the total, Chicago handled 19%, Omaha 14%, Denver and Kansas City each 7½%, and Jersey City about 6%.

<sup>5</sup> From United States Department of Agriculture, *Yearbook*, 1923.



*Source of Market Lambs.* The first range lambs to arrive in numbers are the lambs born in sheds in Idaho, Oregon, and Washington. They begin coming to market by the middle of June and continue through July. During the next three months the movement from the range increases steadily until it reaches its peak in October. In December, receipts consist largely of short-fed stock, which were bought late in the summer or early in the fall and sent out to clean up stubble fields and farm roughage, and lambs which have been fattened in corn fields. In January, most lambs coming to market are fed from feed lots. In February, March, and part of April, practically all the lambs come from feed lots.

*Feeder Sheep Shipments.* Not all the sheep and lambs marketed are slaughtered immediately, a considerable proportion of them being returned to the country for further finishing. Feeder sheep shipments are largely confined to the four months August to November, during which time more than 70% of such shipments from central markets usually occur.

#### *Market Prices of Sheep and Lambs*

The more important factors which determine the market price of sheep and lambs are available supplies, consumptive demand, grade of the animal, and the price of wool.

Consumption of lamb and mutton varies widely in different sections of the country. It is greatest in the northeastern and far western sections, least in the south Atlantic and west north central states.

*Grades of Sheep and Lambs.* Although the general price level of sheep and lambs is largely determined by supply and demand conditions combined with the price of wool, the price of any given lot of sheep or lambs depends chiefly on the grade of the animals which comprise the lot. The grade of sheep and lambs intended for slaughter is determined largely by variations in quality, conformation, and finish.

*Effects of Wool Prices.* Wool is another factor which enters strongly into the determination of sheep and lamb prices. Perhaps this commodity is the source of more complications than any other single item. This is due partly to comparatively wide fluctuations in the price of wool, but more particularly to the extreme variations in the amount of wool carried by the animal at various seasons of the year.

*Long-Time Variations in Prices.* In studying sheep and lamb prices over a period of time, one characteristic stands out strongly.



Largely because of the fact that lamb and mutton still are considered by some people as luxuries, lamb and sheep prices show a much greater sensitiveness to variations in general business, trade, and economic conditions than do most commodities.

### ASSEMBLING LIVE STOCK<sup>6</sup>

#### *Delivery of Live Stock Performed by Growers*

The transportation of live stock from the farm to the shipping point, or sometimes directly to a nearby market, is performed by the farmer, who either drives the animals or transports them by wagon or motor truck. The increased use of motor trucks has considerably widened the area from which direct shipments may be made to market, and an increasing, though small, proportion of the receipts at the central markets arrive in trucks. At Chicago, about  $\frac{1}{2}$  of 1% of the receipts are delivered by truck or are driven in.

Transportation to a shipping point is the ordinary procedure out in the country. In this process there is a cost involved, such as maintenance of horses and wagon or motor truck, and labor. The producer pays this and considers the expense a part of the cost of production. There is no essential difference between this first step in the marketing process and all of the following steps, such as railroad transportation, processing and distribution, since they are all parts in the production of the final salable commodities.

#### *Live Stock Shipping*

The producer who raises enough live stock may be able to ship to market in full railroad carloads; in that case the carrier furnishes him free transportation for an attendant per car; if shipping two cars or more from a point west of the Illinois-Indiana state line, free return tickets are also supplied. More often, however, particularly in the central and eastern states, each farmer has only a few animals to sell at a time, and he cannot ship independently in an economical way. This condition is the basis for the business of the shippers, who buy live stock from the territories surrounding a shipping point, assemble them in carloads, and send them to the central markets. In recent years, the producers themselves, through cooperative shipping associations, have taken over a considerable part of this business, performing it on a cost basis. The service of shipping in all cases is essential and

<sup>6</sup> From E. N. Wentworth, *Marketing Livestock and Meats*, Armour's Livestock Bureau, 1925.

involves a standard cost between producer and consumer that must be paid, whether it be performed by private individuals or by cooperative associations.

### COOPERATIVE LIVE STOCK SHIPPING ASSOCIATIONS<sup>7</sup>

Marketing live stock through cooperative shipping associations has become well established in those states where hogs are marketed in considerable numbers throughout the year. This method of marketing is also being used to some extent in general farming and dairy sections, where most farmers raise a few cattle, sheep, and hogs for market every year. The extensive development of cooperative live stock shipping associations is evidence of results satisfactory to the many thousands of live stock producers who market their stock through them.

The associations for the cooperative shipping of live stock were, as a rule, organized to take care of the live stock in territory tributary to a local shipping station, and a majority of the associations in existence today were organized for that purpose. Such associations usually confine their operations entirely to the marketing of live stock; but there are some which also handle feed, salt, coal, and other supplies used by farmers. In many of the states there are also cooperative organizations of producers, such as cooperative grain elevators, cooperative stores, and creameries, which in addition to their principal activities, receive and market the live stock of a community on a cooperative basis.

In recent years in some of the states, particularly Ohio, what is known as the county-wide type of association has been organized. Such associations, organized on the county unit basis, provide for shipping live stock from practically every railroad loading point in the county where the necessary facilities are available. A county manager is employed, who is responsible for listing, receiving, marking, grading, weighing, and consigning the stock and receiving and prorating the returns. He usually has an assistant at each shipping point, who attends to all the details incident to receiving and loading the stock for shipment.

Very little capital is required in the operation of a live stock shipping association, as it should not at any time buy or speculate in live stock, nor should payment be made for any animals shipped until the returns have been received.

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<sup>7</sup> From *Cooperative Livestock Shipping Associations*, United States Department of Agriculture, Farmers' Bulletin No. 1502, July, 1926.

The success of a live stock shipping association depends to a large extent upon the manager; therefore great care should be used in his selection. Some associations have employed live stock buyers as managers. These buyers as a rule thoroughly understand the shipping and marketing of live stock and are well acquainted with the farmers of the community.

The shipping days being known, the farmers notify the manager by telephone or otherwise of the number of head and the approximate weights of the different kinds of stock they have to ship. This should be done several days in advance, so that the manager will have sufficient time to arrange for proper car space. When the manager has listed enough live stock of a certain kind to make a carload, he arranges for a car and then notifies all those who have listed stock as to the date he will receive it. The farmers deliver their live stock on shipping days to the manager, who weighs and marks and, to a certain extent, grades it.

Cattle and calves are marked by clipping 4-inch Roman numerals on the right or left hips, preferably the former. Sheep are marked by using branding fluid applied with a half-inch stiff round-bristled brush for marking. Hogs are marked by clipping not to exceed four marks on the top of shoulder, back, or rump, or not to exceed three marks on the side of shoulder, body, or ham. This will permit separate marks for 21 owners. Hogs are not marked by many associations, but are graded and weighed by the manager at the shipping point, and a record is kept of the different weights and grades and of the dockage. The shrinkage is prorated in this case on the basis of home weights. Hogs of the same grade and value, though marked differently, usually are sold and weighed together at the market and the shrinkage prorated.

Prorating of expenses on cooperative shipments is done either by the commission firm selling the stock or by the manager. A specified rate per 100 pounds or per car is deducted from each shipment to cover the manager's commission and running expenses and to provide for a protection fund.

Several advantages are to be gained by farmers in marketing their cattle, hogs, and sheep cooperatively. Foremost among them is the possibility of a greater net return to the farmer if the association is efficiently managed. He receives the prevailing market price for his live stock, less the actual cost of shipping and marketing. Another important factor is that in most instances the existence of the shipping association has compelled local buyers to operate on a much narrower



margin. Returns received for thin stock, calves, and lambs shipped cooperatively often are larger than expected, for it is on these classes of animals that local buyers ordinarily make their largest profits.

## TRANSPORTATION<sup>8</sup>

### *Railroad Rules and Responsibility*

The rules of the railroad companies generally allow an owner of one car of stock to accompany the car to market, riding free on the stock train as a caretaker. If he has two or more cars in the shipment, the railroads in territory west of the Illinois-Indiana state line now give him free transportation back to his home on a passenger train. East of that line, no return transportation is furnished.

The station agent makes out a waybill, indicating to what market the stock is to be shipped, to whom consigned, whether to the owner himself or to some commission house representing him.

The owner must stand all losses due to death of animals from natural causes, such as diseases, heat or cold, trampling, or smothering, where the carrier has not been negligent, but proof of good condition of stock at loading time is prima facie evidence against the carrier if the stock be delivered dead or in bad order. If the loss is due to an accident such as the wrecking of the car, the railroad is responsible for the loss.

There is a form of insurance by means of which the owner can protect himself against loss in transit regardless of the cause. Under this form of insurance the company pays the owner for any loss of stock between the point of loading and destination. If the railroad is responsible for the loss, the insurance company reimburses itself by collecting such loss from the railroad.

### *Terminal Railroad Facilities*

Most of the large markets have a terminal railroad or series of switch tracks so laid out as to be easily accessible to all the railroads touching that market. These terminal lines or switch tracks are owned by a terminal railroad company, or by the stockyards company itself, so that no railroad line can be blocked from reaching the yards or unnecessarily delayed in the delivery of live stock.

When a shipment of stock reaches the market to which it was consigned, it is switched to the terminal tracks and pulled up to the unload-

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<sup>8</sup> From Arthur C. Davenport, *op. cit.*, pp. 23-26.



ing chutes. The responsibility of the railroad company ends as soon as the stock is unloaded into suitable pens.

#### *Unloading and Yarding Stock*

Employees of stockyards companies unload the stock while other representatives of the same company take charge of the waybills turned over by the conductor of the stock train. These bills are taken to a nearby office of the stockyards company, called the receiving office, bulletin office, or chute house, where the name of the owner, the name of the party to whom the load is consigned, number of car, and the number and kind of stock are entered in books or on bulletins available to those personally interested.

Representatives of commission houses are in constant attendance to catch shipments consigned to them and when in a hurry for the stock receive it in the alleys as it is unloaded, thereby releasing the stockyards company from further responsibility. In other cases, employees of the stockyards company drive it to the pens used by commission firms, but the stock may still remain in possession of the stockyards company, in which case its employees place padlocks on the gates of the pens in which it is yarded. It remains locked up until the owner or his representative, the commission firm to whom it was consigned, requests that it be unlocked. When this is done, it amounts to the turning over of the stock to the owner or his representative, and the stockyards company is no longer responsible.

#### *Shipping out of Yards*

The facilities for shipping stock out of yards are just as good as those for receiving it. The owner or his representative orders the number of cars desired set at the chutes. Just previous to the hour for the train to leave, the cars are loaded just as they were unloaded. Railroad agents, with offices in the yards, bill the stock out. At the big market points where many outside buyers are operating, the shipments are always large. The purchase of feeders by the country adds to the volume. At some of the markets a great deal of stock is received to be fed, watered, and rested, without being offered for sale, and then reshipped to other points. Thus the difference between the receipts and the shipments at a market furnishes a very good index as to the number of head slaughtered at that point.

#### *Minimum Livestock Rates*

Freight rates are controlled by the Interstate Commerce Commission

and are subject to revision from time to time. An important feature is the establishment of minimum weights to insure the efficient use of live stock cars and to protect the carriers against losses from cars not loaded to capacity. There are some regional deviations in the standards established, but in general, the minimum weights are the following: for cattle, 22,000 pounds; for hogs in single-deck cars, 16,500 pounds; for hogs in double-deck cars, 23,000 pounds; for sheep in single-deck cars, 12,000 pounds, and in double-deck cars, 22,000 pounds.

### STOCKYARDS SERVICE<sup>9</sup>

Among the more important services rendered by a stockyards company are the following:

- Receiving of live stock
- Giving it yard room, shelter, feed, and water
- Weighing of live stock
- Its delivery to buyers
- Loading of live stock for shipment
- Maintenance of office buildings and other necessities

The stockyards company receives live stock shipments from the railroad companies, unloads the animals, and locks them in pens. The company is responsible, in case animals are lost or stolen, from the time it receives them from the railroad until it delivers them to the owner or to the commission firm representing him. In case the stock is lost in a fire, stockyards companies as well as other market agencies have claimed that they were only agents and not liable for fire losses. There have been some very disastrous stockyards fires, and to cover possible losses of stock, over forty stockyards have in many cases what is termed blanket insurance taken out by the live stock exchanges. The cost of this insurance is 15 cents per car, which is paid at most markets by the shipper or original owner of the stock, the amount being deducted at the time the stock is sold.

#### *Feeding and Watering Stock*

After a shipment has been turned over to a commission firm, its representatives order the kind of feed (hay or corn) and quantity desired for each pen. The stockyards company delivers the feed as ordered by the commission firm and renders bill for same. The commission firm is held responsible for payment of this bill and is expected

<sup>9</sup> From Arthur C. Davenport, *op. cit.*, pp. 35-36.

to deduct the amount from the sale of the stock. Employees of the commission company see that the water, which is piped to each pen, is turned on and the water troughs kept full. The stockyards companies have elevators for corn and plenty of space for the storage of baled hay, the big markets using vast quantities of feed.

Every stockyards company has a fixed price to be paid per bushel for corn and per hundred pounds for hay, but the price is changed from time to time. No charge is made for water, the total consumption of which is very large. At some market points it has been figured that each animal sold required his weight in water, only a small part of which is actually drunk, most of it being used for other purposes. In hot weather, much water is used to wet down hogs and to flush pens; and some animals do not seem to drink or fill well unless they hear the water splashing in the troughs, which means great water wastage. Some stockyards companies own their own water works, while others buy their water from the city companies.

#### *Services of Terminal Railroad*

The transportation company at the market owns the switch tracks leading from the main railroad lines into the yards, and also the engines which handle the livestock trains to and from the loading chutes. Its service comprises the assembly of the livestock cars from all railroads supplying the market and the delivery to these railroads of outgoing shipments. Its pay is received through switching charges at so much per car.

#### LIVE STOCK COMMISSION FIRMS<sup>10</sup>

A live stock commission company is one that receives and sells live stock, for which service a commission is charged. This commission varies at different times and at different market points, but at most markets, especially those in the West, is figured at a certain price per head or per carload. Some eastern markets, such as Baltimore, Philadelphia, Jersey City and Lancaster, Pennsylvania, figure commissions for selling live stock on a percentage basis.

Each commission firm has offices in the exchange building owned by the stockyards company, for which is paid a regular fixed rental; also yard space assigned to it by the same company. It has a corps of salesmen for cattle, hogs, and sheep, depending in number upon the extent of the firm's business.

<sup>10</sup> From Arthur C. Davenport, *op. cit.*, pp. 39-40.



Some of the larger firms have separate men for different classes of cattle, such as beef steers, butcher stock, stockers, and feeders. There is always a force of clerks and accountants and other office help.

The total number of employees of a live stock commission house is larger proportionately than in most other lines of business because live stock is a perishable commodity and, to prevent needless and possibly heavy loss, must be sold on the day of arrival. Being a spot cash business, custom requires that the money must be turned over to the owner the day of the sale. Hence each commission house must have a sufficient force of men to take care of any amount of stock that may be consigned to it on any given day, and have it sold and weighed before the close of the day; also clerks to figure the bills, collect on them, and send the money back to the country the same night. At most market points, the bulk of the stock arrives on three or four days of the week, which compels commission men to keep more men than would be necessary if receipts were more evenly distributed.

*More Owners Increase Work.* There is a growing tendency among small producers to ship their own stock in cooperation with neighbors instead of selling it to country buyers. In times past, one owner would frequently ship in a whole train of stock at a time, which would sell, without sorting, to one buyer and be weighed in big bunches. Now, one car frequently will have a half-dozen or more owners, so that much of the stock is weighed in small lots. It requires practically as much time and as many men to sell, weigh, and bill two head in a lot as it does a carload. Thus, even where there is no increase in receipts, the amount of labor involved in the handling of live stock on a market has been enormously increased during the last few years.

*Cooperative Commission Houses.* Cooperative commission houses do not belong to the exchange and are not subject to its rules. They have followed the practice of charging the same commissions as are fixed by the exchange. They have a system of rebates under which surplus earnings are divided among patrons who are stockholders or members of the organization, prorated according to the amount of stock shipped by such members. Shippers who are not members are not allowed under Government rules to participate in such rebates.

*Services of the Packer.* At all markets, local packers have erected plants from which they supply the neighboring territory with meat. At the big markets where there is a surplus of live stock in proportion to the local needs, the national packers have located their plants in



which they process live stock, ship the products to all parts of the country and also abroad, and store other products for the use during seasons of short live stock supply.

*Services of Order Buyers and Traders.*<sup>11</sup> Besides the buyers from the local and national packing houses, so-called order buyers are operating on the market. These men buy mostly on orders for eastern packers and ship the live stock to the seaboard for slaughter. The traders or speculators buy and sell within the market wherever they expect a chance of profit, and especially buy mixed carloads, sort these, and make up new loads of uniform grades.

*Other Central Market Services.* Stockyard banks provide facilities for the transactions through commission man and packer which enable the shipper to carry cash home with him if he so desires, or to obtain transfers of credit to his local banking institution. Market papers inform the shipper as to receipts, prices, and trade conditions. In recent years the Government has established a service at the larger markets providing regular quotations and other information. The sanitary conditions are also under the control of Government officials.

### METHODS OF BUSINESS AT CENTRAL MARKETS

*Yarding of Stock.* When the live stock cars have been switched from the main railroad lines into the yards by the terminal railroad, they are unloaded at the chutes by representatives of the stockyards company, who receive the waybills and take over the responsibility for the stock. The animals are brought to the pens of the commission firm to which they are consigned and locked in each pen until the commission firm acknowledges receipt of the stock by requesting the opening of the padlock. For the information of the commission men, the bills of lading are called and posted at the receiving office, or chute house. The commission men may also meet the trains and take over their stock from the stockyard company at the chutes.

*Selling Stock.* The commission man orders the feed for the stock and offers the stock for sale. It is customary that only one buyer at a time negotiates with the salesman, and the deal is completed by a word or nod of the head, no written contract being prepared. The bidding is on the basis of price per hundred pounds live weight, and

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<sup>11</sup> From E. N. Wentworth, *Marketing Livestock and Meats*, Armour's Livestock Bureau, pp. 36-39.

immediately after the purchase, the stock is driven into the scale houses operated by the stockyards company. The total price is determined on the basis of the weight stamped on the scale ticket. When the stock leaves the scale house, the responsibility of the commission man ends, and the stock is in the possession of the buyer, who ordinarily drives it to his own pens, where he can keep it until it is ready for slaughter or transportation out of the market.

### *A Typical Incident*<sup>12</sup>

An illustration of how this buying goes on may be given by gathering a snatch of the conversation between a Swift buyer and a commission man, which goes on with every sale. It runs thus:

"Lo, Eddie, come look at a load of dandy white-faces from some farms near Des Moines, Iowa. Ever see such class? You can't touch 'em this morning in the yards, Eddie."

"How much?"

"Well, Eddie, I'll weigh them for you for 16 cents."

"See you later."

"Now, Eddie, wait a minute. This is better stuff than I sold you last week at 17 cents, and you know what the market is today. I know where I can get 16½ cents a pound on this load. Now mind you, Eddie, this stock has been tied up three days near Clinton by a broken bridge. Six days in a car! Of course they look a little drawn. Give me 15¾!"

An hour later, the Swift buyer rides past the same pen and once more examines this load, comparing it with what other commission men are offering. The price may have dropped slightly, but he holds firm, and after another hour, on his third trip, probably compromises at a satisfactory figure.

After the buyer has decided on a purchase, he utters only a laconic, "Weigh 'em to Swift," and passes on to drive another bargain. He has made a purchase, but he has not written a notation of any kind. He carries the price asked by the commission man, his various bids, competitor's bids, the final price effected for a sale, and all of the details in his head. And so does the commission man. There exists a tacit understanding that neither will take advantage of the other by shifting figures in this oral bargaining, and the Swift buyer completes his day's work in the pen without the aid of a pencil, but later he puts down the prices at the Swift office.

<sup>12</sup> From R. A. Clemen, *American Livestock and Meat Industry*, New York, The Ronald Press Company, 1923.

*Hold-overs*<sup>13</sup>

At most of the live stock markets, trading stops at 3 p. m. Animals which are in the yards and which are not sold at that time constitute the "hold-overs." Hold-overs are sometimes believed to be an instrument of price manipulation, but statistical studies have shown that the number of hold-overs bears very little significant relation to price movements, and that hogs are practically as often held over to meet a rising market as a declining.

*Payment to Producer*

All sales of stock are cash, and the same afternoon on which the stock is sold commission firms make up their accounts with their customers. From the amount actually received for the stock is subtracted the amount of the railroad transportation bill, which the commission man refunds the stockyards company to meet the bill it settled on receipt of the cars. Yardage fee, feed bill, insurance fee, and commission fee are also subtracted, as well as occasional special fees for organization work agreed to by the shipper.

GRADING OF LIVE STOCK<sup>14</sup>*Livestock Grades*

In general, grading and standardizing of grades is more difficult with livestock than with most other commodities. First, the individual variation of the animals is exceedingly great. Secondly, the quality of the receipts varies at different times of the year and in the various sections of the country. A good choice heavy steer will, in the spring, probably come from a Corn Belt feed lot, and in the fall, from a western ranch. Also, a "good" steer in the South would probably grade as "common" in Chicago. In recent years, considerable effort has been made to standardize grades, and the Bureau of Agricultural Economics of the United States Department of Agriculture is at present organizing a system which should be applicable to all markets, thus unifying the standards. The following gives a tentative outline of such a grading system. For brevity's sake, the quality grades are indicated by numbers, as follows: Prime or Fancy, A1; Choice, 1; Good, 2; Medium, 3; Common, 4; Inferior or Cull, 5. In some classes the inferior grades are termed "Cutter" 5 and "Canner" 5.

<sup>13</sup> From Wentworth, *op. cit.*, p. 41.

<sup>14</sup> From Wentworth, *op. cit.*, pp. 43-44.

*Market Subclasses*

The subclasses indicate the use to which the animals are best fitted. Those that display a certain degree of maturity and finish are classed as "slaughter" animals, and are most likely bought directly or indirectly by packers. "Feeders," on the other hand, are more or less immature or unfinished animals intended for sale to farmers or commercial live stock feeders who expect to profit from fattening them further before they are returned to the market for slaughter. Frequently packer and feeder buyers are in active competition for light cattle, and there is, therefore, no definite borderline between "slaughter" and "feeder" cattle. "Stockers" are immature or thin animals which are not fit for the feed lot and which need additional development on rough feed or pasture. "Milkers" are dairy cattle during the lactation period, and "springers" are cows due to calve very shortly. The latter two groups are purchased on the market by farmers who want to buy producing dairy cows.

GOVERNMENT MARKET ACTIVITIES<sup>15</sup>*Veterinary Inspection*

The Bureau of Animal Industry has charge of the veterinary inspection of live stock and meats. All live stock entering public markets pass by an inspector, all animals suspected of infectious diseases being removed and quarantined until they can be killed under special supervision. At the inspected packing houses, the live animals once more pass a Government inspector. During the dressing of the carcasses comes a post-mortem examination, at which the internal organs of the animals are examined for tuberculosis and other diseases which may make them unfit for human food. According to the findings, the carcasses are stamped "U. S. Inspected and Passed," "Passed for Sterilization," or "Condemned." The second group may be sold after proper cooking under Government control. The third group is consigned to the grease vat and sold as inedible grease or fertilizer. Also the general hygienic conditions in the packing houses, the treatment of the meats in storage and through the various processes, is supervised by Government inspectors, who insure the public that all meat products coming from an inspected plant are wholesome and fit for human consumption.

<sup>15</sup> From Wentworth, *op. cit.*, p. 54.



*Market News Service*

The Division of Marketing Live Stock, Meats, and Wool, of the Bureau of Agricultural Economics, has representatives at the important live stock markets and also at the wholesale meat markets in Chicago and the big eastern cities. The division maintains a highly efficient market news service by means of a network of leased telegraph wires. The data collected are published in mimeograph and printed form and comprise several daily market reports and advance estimates on live stock receipts for the following day, also weekly detailed reports on the 12 leading live stock markets and monthly reports on 67 public markets. Daily reports of wholesale meat prices are likewise issued.

*Live Stock Estimate Service*<sup>16</sup>

The Division of Crops and Live Stock Estimates publishes information concerning the status and prospects of live stock production. This information is prepared in the form of regular reports, of which some of the more important are the annual estimate of live stock population (January 1); the estimate of number of brood sows on farms (April 1); the condition of live stock (May 1); the pig surveys through rural mail carriers (June 1 and December 1); estimate of calf and lamb crops in the range states (July 1); estimate of stock hogs on farms (September 15); number of cattle on feed in the Corn Belt states and the number of lambs on feed in the principal feeding areas of the West (December and January); also reports covering special areas.

*Packers and Stockyards Administration*

The Packers and Stockyards Administration is directly connected with the office of the Secretary of Agriculture and is headed by an assistant to the Secretary. The organization comprises separate divisions dealing with the live stock commission companies, the stockyards companies, and the packers. The activities of the Stockyards Administration are regulatory and are intended to insure and enforce fair trade practices and free competitive conditions. The administration also determines all fees and charges collected from the producers by the commission firms and the stockyards companies.

HANDLING STOCKERS AND FEEDERS<sup>17</sup>

The development of the trade in stocker and feeder cattle, hogs, and

<sup>16</sup> From Wentworth, *op. cit.*, p. 59.

<sup>17</sup> From Arthur C. Davenport, *op. cit.*, pp. 74-77.

sheep at the centralized markets has been very rapid during recent years. To begin with, the Corn Belt wanted more stock than it could produce to utilize its surplus feed. The only way to secure such stock was to buy it from those sections that were able to breed more than they could fatten for market. In the early days, big feeders at times would visit western ranches where they would bargain for the cattle or sheep desired, buying their stock on the range direct from the producer. Such trips were expensive, both in time and money, and frequently the would-be buyer was forced to return empty-handed because he did not happen to find the owners in a selling mood. At the same time, producers were shipping to market grass-fed stock intended for killers, but always containing a certain percentage too thin in flesh to interest packers. These thinner animals, both cattle and sheep, were just what the farmers in the Corn Belt wanted to consume their surplus feed. Thus, farmers early gained the habit of visiting the big markets when they need stockers or feeders, and producers, finding that there was a market for thin stock, increased their shipments of that kind. In this way the stocker and feeder trade naturally centered at those live stock markets that were most convenient for both buyers and sellers. Kansas City, Omaha, Chicago, St. Paul, Sioux City, Denver, and Fort Worth are prominent among the markets that handle large numbers of stocker and feeder cattle. Chicago, Omaha, Kansas City, and Denver receive a great many feeder sheep.

In the early days, only cattle and sheep could be reshipped from a central market for stocker purposes or to be fattened for killers. It was not possible to handle hogs in that way because of the danger of spreading cholera. With the discovery and perfection of the method of vaccinating hogs against cholera, it became possible to ship stocker and feeder pigs also. St. Paul, Kansas City, St. Louis, and Fort Worth are important centers of the feeder pig trade, while other markets handle considerable numbers.

#### *Handling Stocker and Feeder Cattle*

The desire of the feeder buyer for cattle of uniform color and weight, because such cattle handle better, feed better, and sell better, is responsible for the fact that the trade is managed largely by men who are known on the market as traders or dealers in stockers and feeders. At the large markets, these men cut a very big figure in the trade and afford an outlet for a vast number of cars of cattle too thin in flesh for profitable slaughter. They buy carloads of mixed cattle just as

they arrive from the ranches and farms, that is, cattle of all sizes and colors and weights, suitable for stockers or feeders. The trader drives these cattle from the scales to the feeder division, where each individual or firm engaged in the business has certain pens assigned to his use, the same as pens are assigned to commission men.

### *Sorting Feeder Cattle*

The trader sorts his day's purchase to fit, as nearly as possible, the buying demand from the country. For example, he will sort according to color and breeds, and will shape up the cattle into carload lots according to weights. Thus he is prepared to accommodate a buyer from the country wanting, for example, a bunch of Hereford feeders of a certain average weight. Other buyers wanting cattle of the same breeding but of different weights will find them also.

### *Farmer May Do His Own Buying*

The buyer of feeder cattle from the country can follow his own ideas as to buying. He can buy the cattle himself direct from the commission firm representing the man who brought them in from the country, or from a trader, or he can go to his commission man, who will buy the cattle for him, charging him the regular commission for such service. Some feeder buyers, after looking over the market and making up their minds as to the kind of cattle they want, will return home leaving an order with their commission man to buy and ship when he can get something that looks worth the money. This places the responsibility entirely on the commission man, who will endeavor to buy cattle at a price that when the cattle are fat and returned to him for sale, will make his customer a satisfactory profit. Others prefer to have the cattle bought while they are present to sanction the deal and take the cattle back with them.

## B. CONSUMED ON A SMALL SCALE

### XV

#### EGGS

##### WHERE EGGS ARE PRODUCED<sup>1</sup>

SPECIALIZED poultry farms on which the production of market eggs is the chief activity are much less numerous than farms with a general farm flock. Specialized egg farms are located in greatest numbers along the Atlantic Coast, in close proximity to the great consuming centers, and along the Pacific Coast, where the climatic conditions are especially favorable. They are found in smaller numbers close to large cities and scattered generally throughout all the United States. Because of their smaller numbers, the egg production of specialized poultry farms is much less than that of general farms.

While there are areas of intensive egg production in the East and on the Pacific Coast, the greater supply is produced in the eastern north central and western north central states. According to the census for 1919, Iowa led with an annual production of 120,000,000 dozen, followed in order by Missouri, Illinois, Ohio, Indiana, Kansas, Pennsylvania, Texas, California, and New York. Not only do the middle western states produce more eggs but, because of a smaller urban population, they have a greater surplus available for shipment to eastern markets. The origin of eggs received in New York, Chicago, Philadelphia, Boston, and San Francisco markets clearly indicates the importance of each state as a surplus producer of eggs.

The smaller cities obtain their supply of eggs in large part from the producing territory immediately surrounding them, but the larger cities must draw most of their needed supply from more remote producing sections. The larger the city, such as New York, or Boston, and the more extensive the suburban population, the greater becomes the problem of obtaining a supply and the necessity that a part of the supply be secured from greater distances.

While practically all the surplus eggs produced in New York, New Jersey, and Pennsylvania are sent to New York City, the quantity

<sup>1</sup> From R. R. Slocum, *Marketing Eggs*, United States Department of Agriculture, Farmers' Bulletin No. 1378, March, 1924.



shipped to that market from these states is but little more than 10% of the yearly supply. The greater portion comes from the Middle West and, to a less extent, from the Pacific Coast and the southern states.

### THE PROBLEM OF TRANSPORTATION

Where eggs are produced from small flocks in sections located a long distance from market, it is necessary that they be assembled and packed properly in large lots for economical handling and shipment. Therefore the business of the egg buyer and shipper became necessary.

The egg is a delicate, fragile food product, subject to rapid deterioration under unfavorable conditions. Moreover, shipments to the large eastern markets from the middle western states, where the great bulk of eggs are produced, must travel an average of over 1,000 miles. This indicates the need of refrigerator cars for shipping the eggs and the general scope and complexity of the transportation problems involved. The Interstate Commerce Commission reported that in 1921, Class 1 railroads of the United States carried over 47,000 cars of eggs alone.

If eggs were produced at an even rate throughout the entire year, the supply would be uniform and continuous and the problem of marketing much simplified. But the production is highest during the spring and early summer months and gradually declines during the fall, until it reaches its low point in November and December.

### COLD STORAGE

The uneven seasonal production results in a surplus during the spring and a corresponding scarcity during the fall and winter. It is one of the functions of the wholesale egg trade to equalize the supply and meet the demand at all seasons as nearly as possible. This is done by moving a part of the spring eggs through the usual channels for immediate consumption while the rest are carefully candled, packed in new cases, with new fillers and flats, and shipped to the larger cities, where they are placed in cold storage and held until fall and winter, when there is a shortage of eggs. Eggs specially packed for storage in new cases made of odorless white wood, with new fillers and flats, are called "storage packed" and sell for slightly higher prices per dozen than ordinary packed.

Approximately 12% of the total annual production of eggs is stored. The season of storage begins in March, is most active during April

and May, continues at a lessened rate during June and July, and closes about August 1. Withdrawal of eggs from storage is slight in August, but gradually increases through September and October, is heaviest in November and December, and continues through January and February until the stocks are practically exhausted by March 1, or earlier. Apparently 40% to 50% of the total annual holdings for the United States is stored in the five markets, New York, Chicago, Philadelphia, Boston, and San Francisco.

The holding of eggs in cold storage is a legitimate and needed market function which benefits both producers and consumers. Without cold storage, eggs would hardly be worth enough in many localities in the spring to pay to gather them, and in the fall the supply would be far from sufficient to meet the demand, and the price so high as to be prohibitive. Through the storage of eggs there is a demand in the spring for the surplus, resulting in attractive prices to the producers and in the fall and winter a large supply of wholesome storage eggs is made available at prices within the reach of consumers. At the same time, the demand for new-laid eggs is sufficient to maintain a price on them at a level which makes winter egg production profitable.

Storage rooms for eggs must be utilized for this purpose exclusively. Other products cannot be stored with eggs on account of the danger of imparting undesirable flavors or odors to them. The temperature of an egg storage room should be maintained within a range of 29° to 32° Fahrenheit, the humidity should range from 82% to 85%. The cases are stacked one upon another with strips between to allow freer circulation of air.

There are various state regulations with reference to the cold storage of eggs. Most of these have to do with the length of time that eggs can be kept in storage, the length of time they may be temporarily held in storage without being termed storage (usually 30 days or less), marking the cases with the date on which they went into storage and the date when withdrawn, and the sale of cold storage eggs only as such.

## MARKET CHANNELS

### *The Country Storekeeper and the Egg Packer*

Most of the commercial market eggs are produced on general farms in the Middle West. These eggs are to a large extent marketed through the country car-lot packer and shipper. This process involves the passage of the eggs through a relatively large number of hands. The

farmer may take his surplus eggs to town when it is convenient and sell them to a local merchant for trade, or to a local egg buyer for cash. In some sections, hucksters with wagons go through the country and purchase eggs at the farm's door.

The custom prevalent in many sections of the Middle West with hucksters and local merchants of buying eggs on the "case count" basis is a practice most damaging to quality. When eggs are purchased on this basis, payment is made solely on the number of dozens of eggs delivered, without regard to their quality or the percentage that are good or bad. Such a system offers no incentive to the careful farmer to produce good eggs, for he receives no more than the man who produces poor eggs. In the last few years there has been a decided tendency to substitute for the "case count" basis of buying, a "loss off" basis. On the "loss off" basis, no payment is made for eggs that are unwholesome and unfit for food and a difference based on quality may be made in the price paid for the good eggs. In some states, laws have been enacted regulating egg buying and requiring that a "loss off" basis be used.

The country merchant or storekeeper and the local egg buyer ship the eggs to car-lot packers or shippers or to less-than-car-lot receivers in the market. However, a considerable time often elapses before these eggs are shipped, and the conditions under which they are kept are often so unfavorable that a distinct deterioration in quality occurs. When the eggs are received by an up-to-date car-lot packer and shipper, they are immediately placed in the refrigerated rooms where the temperature is between 35° and 40° Fahrenheit and held until they are thoroughly cooled. Some of the smaller shippers are not so well equipped and eggs may not be handled so well, but in any case they are candled, graded, repacked, and shipped by refrigerated fast freight or express, either in car lots or in less than car lots, to a large market where they go into consumptive channels immediately or are placed in storage for future sale. In the large markets the eggs are distributed by the receiver to retailers or to jobbers, who in turn sell them to retailers.

When eggs are marketed through this channel, considerable time may elapse from the time the egg is laid until it reaches the consumer. Usually, it takes three weeks and in some cases considerably longer, especially when the eggs are held in cold storage for future sale.

#### *Producer to Retailer or Hotel*

Producers frequently sell to retailers or to the hotel and restaurant



trade. The prices paid are often nearly as good as for deliveries direct to the consumer, and this method has the advantage of fewer deliveries with a large volume in each. It is therefore a less expensive method of selling than direct to consumers. Deliveries to this trade are made by automobile truck, parcel post, or express shipments.

#### *Producer to Consumer*

As a rule, direct marketing from the producer to the consumer involves a considerable number of small sales at the best prices obtainable, and its continuance depends upon the delivery of a product of high quality. The question of whether the producer can afford to employ direct marketing depends upon the time and expense entailed in establishing and maintaining a trade for all or a goodly portion of his product. To deliver eggs to the consumer the producer may make use of the parcel post, establish an egg route, deliver his own produce, or depend upon sales at his own door.

#### *Producer to Wholesale Dealer*

A large number of producers sell their eggs to wholesale dealers, shipping one or more cases into the market by express. Such a method of sale requires considerably less effort for the producer, as he does not have to establish and maintain contacts with the consuming trade. On the other hand, the return is somewhat less. When a reliable wholesale dealer is found, this method of marketing is often very satisfactory.

#### *Cooperative Marketing*

In certain sections of the country, egg producers have formed cooperative marketing agencies, either because of the unsatisfactory prices which they have received, or because of an overstocked local market and the necessity of disposing of their surplus in distant markets. The smallest local cooperative marketing enterprise is the egg circle. In forming one of these circles, several producers associate themselves together and pool their eggs for shipment to a common market, usually in small lots by express. Another plan of cooperative egg marketing consists of the utilization of the local cooperative creamery as a means of obtaining an outlet. As the farmers are already marketing their cream through the creamery, it is comparatively easy to deliver their eggs at the same place and at the same time.

In certain sections, however, special marketing associations have been formed which handle the produce of a large number of producers. The



eggs are generally gathered together at receiving stations, where they are carefully graded and shipped to market in car lots under refrigeration. The cooperative poultry and egg marketing associations of the Pacific Coast are excellent examples of the successful operation of such a plan.

One very successful egg company<sup>2</sup> has a large incubator house with 12,000 eggs capacity, where early chicks are produced for the members at a low cost. This is done in order to obtain early maturing pullets, thus securing eggs during the fall, when eggs are usually scarce. The company also has a receiving room for eggs, where they are candled, sorted to weight (about 24 ounces to the dozen), packed in cartons, and shipped on contract orders. Their eggs are all guaranteed to be according to grade, they advertise the fancy grade on their cartons and cases, and market prices are paid to the members. Twice a year dividends are paid each member in proportion to the quantity of eggs marketed through the company and the time of year eggs were brought in, a larger dividend being paid per dozen for eggs brought in during the fall and winter than for those brought in during the spring and summer, estimated by months. A regular trade is established with discriminating consumers, with city clubs, with the best class of hotels and restaurants, and with fancy grocers for a supply each day or week.

The reputation thus established enables this association to fix its price at several cents per dozen above the regular market quotations, as fancy trade is willing to pay a premium for a guaranteed article. Most egg circles cooperate in buying their chicken feed and other poultry supplies.

### *The Minnesota Plan for Marketing Eggs and Poultry*<sup>3</sup>

The practice of buying eggs, good or bad, at a flat price is the principal weakness of the present system for marketing eggs. Buyers generally follow this practice, and hence there is very little incentive for the farmer to put on the market a high quality product. This results in careless handling of eggs on the farm and a great loss from deterioration in quality. The "Minnesota plan" for cooperative marketing of eggs and poultry seeks to remedy this condition by providing associations with a large volume of business that grade the product and pay the producers according to grade.

<sup>2</sup> From C. E. Bassett and W. H. Kerr, *The Community Egg Circle*, United States Department of Agriculture, Farmers' Bulletin No. 656, April 1, 1915.

<sup>3</sup> From E. C. Johnson, *The Minnesota Plan of Marketing Eggs and Poultry*, University of Minnesota, Agricultural Extension Division, Special Bulletin No. 86.

During the last ten years, many cooperative creameries in Minnesota have gone into the business of marketing eggs for their patrons. The practice usually followed by the creameries is to buy the eggs for cash, candle, pack, and ship them in cars with the butter to the eastern markets. Some creameries grade the eggs, others do not; where grading is done, only two or three rough grades are used. The success of marketing eggs by this method varies with the individual creameries. If the creamery has had enough eggs for it to hire a competent man who understands the egg business, knows how to candle, grade and market the eggs, the farmers have usually had a good market for their product. Several creameries in this class have been very successful. However, the difficulty is that most creameries do not have enough business for them to afford to hire a competent man and to grade the eggs properly. There was need for a larger local unit than the creamery, and the "Minnesota plan" now being put into operation in the state provides for district organizations with a large volume of business.

#### *Exchange Trading in Eggs*

In the large egg markets, which include practically all the larger cities, exchange organizations composed mostly of wholesale dealers have formulated rules governing trading in eggs and other commodities for their members. These exchanges maintain a sales or auction room where wholesale trading in eggs is carried on each day and, on the basis of the offers, bids and actual sales market quotations are established. In Chicago, one of the greatest egg markets of the country, both spot and future sales are made on the exchange.

### SHIPPING EGGS<sup>4</sup>

#### *By Express*

Shipments by express are generally in lots of one or several cases. On account of the greater expense of shipment by this means over freight shipment, it is commonly employed for comparatively short distances.

#### *By Freight*

Shipments by freight are usually of two kinds, the local pick-up freight and the through car-lot shipment. The pick-up freight service takes the eggs from the small points in comparatively small lots and

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<sup>4</sup> From Earl W. Benjamin, *Marketing Poultry Products*, New York, John Wiley & Sons, Inc., 1923.

delivers them at the packing house or other concentrating point. At this point, after they have been candled, graded, and repacked, they are ready for shipment to their final market.

Four hundred cases is generally considered a carload of eggs, although the number actually stowed in a car may be somewhat more or less. Refrigerator cars, as they proceed on their way to market, are re-iced en route as may be necessary and in accordance with the shipper's instructions at icing stations maintained by the railroad.

### EGG PACKAGES<sup>5</sup>

The smallest unit package used for eggs is the carton. It is a pasteboard package with a capacity of one dozen eggs, and is used very generally by the retail trade.

The producer who ships his eggs generally uses the standard thirty-dozen case which is used by packers. Cases used by producers are often second-hand, while those used by dealers or packers should always be new. The thirty-dozen case is manufactured by firms that specialize in this business. They are shipped knocked down and are put together in the packing plants where they are used.

### COMMERCIAL GRADES

A grade name in one market may not signify the same quality as the same name does in another. For example, according to the official Chicago market grades, the second grade of fresh gathered eggs is called fresh gathered firsts, while the fresh gathered firsts is the third grade of fresh gathered eggs as defined by the New York Mercantile Exchange and of a lower quality. Such a lack of uniformity in grades causes more or less confusion and uncertainty, especially in trading between widely separated markets and in comparing market quotations of different markets.

In all markets, eggs are divided into two general classes based upon freshness; fresh, or fresh gathered, and refrigerator, or storage. Fresh eggs are those which are received at the market within a reasonable time after they are laid and which are in a sweet, full condition. Refrigerator eggs are those which have been in cold storage under conditions which require them to be branded and sold as cold storage or refrigerator eggs.

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<sup>5</sup> From United States Department of Agriculture, Farmers' Bulletin No. 1378.



In some markets, a separate class is made of processed eggs, that is, eggs which have been subjected to some artificial preserving process other than cold storage.

The various classes of eggs are further divided into grades based upon quality. The highest grade is composed of eggs of the best quality, other grades being successively lower according to the lower quality of the eggs of which they are composed.

### *Candling*<sup>6</sup>

Grades are mostly determined by candling. This is done by means of some good light, enclosed in a box or metal cylinder, in which are two small openings alongside of each other, to allow the light to pass through. The room in which this is kept is darkened, and the candler holds to the light in each hand an egg, large end upward, and gives it a quick turn, in order to view the entire contents as it whirls in the shell. To an expert this will quickly reveal the actual condition of the egg, and he will immediately grade and pack it accordingly.

### THE MERCANTILE EXCHANGE<sup>7</sup>

At present, there are in New York two organizations or associations of firms and individuals interested in buying and selling poultry and dairy products. They are known as the New York Butter and Egg Exchange and the New York Mercantile Exchange.<sup>8</sup> Membership in the older of the two—the New York Mercantile Exchange—was formerly so exclusive that the New York Butter and Egg Exchange was organized as a protest against what was called a monopoly. The Mercantile Exchange, feeling this competition, gradually became more tolerant in its membership qualifications, and as a result the New York Butter and Egg Exchange is almost a thing of the past and is no longer very active in the affairs of the trade. Credit is due this organization for having originated the “call board” plan of transacting business. The New York Mercantile Exchange owns a building, located at 6 Harrison Street in the heart of the egg business, and occupies the second floor, which is known as the “change floor,” for offices and the

<sup>6</sup> *The Marketing of Eggs*, Kansas State Agricultural College, Bulletin No. 162.

<sup>7</sup> From *Foods and Markets* (State of New York, Department of Farms and Markets), Vol. I, No. 5, January, 1919.

<sup>8</sup> The Chicago Mercantile Exchange carries on a similar type of work in the Chicago market. Its procedure and rules are essentially the same as those of the New York Mercantile Exchange. There is, however, no official connection between the two.



general meeting room, which is called the "floor." Here the members (only members are admitted) meet at 10 o'clock daily to buy and sell eggs, butter, and cheese. This is done at open auction by competitive bidding.

Instead of auctioning the eggs off to the highest bidder, as the auctioneer sells household furniture and farm tools, the exchange has placed a large blackboard, known as the call board, on a raised platform so that each lot of eggs offered for sale is put in plain view where all may see:

1. Who wishes to sell (Seller)
2. The number of cases (Pkgs.)
3. The grade of eggs (Grade)
4. The conditions under which they are offered (Option)
5. Price asked (Off'd.)

The bidder indicates what he will give. Both the bidder's name and his bid are then written on the board. If a sale is agreed upon, the price paid by the party purchasing is recorded on the board. When the bidding is active, the exchange floor is full of excitement and worth witnessing. The call usually lasts for an hour, and the prices that prevail at these sales are accepted by dealers as a guide for that day, but the trend of the trading may go above or below the average call prices. The prices quoted by market reporters are not the call board prices but the prices actually obtained by the dealers after they leave the change floor and start the day's business. This call is simply a feeler and indicates with some degree of certainty the point of equilibrium between the supply on hand and the existing demand.

#### METHODS OF COLLECTING AND ASSEMBLING CHINESE EGGS AT SHIPPING POINTS<sup>9</sup>

Hankow, commonly known as "the Chicago of China," a city located on the Yangtze River, 700 miles from its mouth, is the center and the distributing point of the egg industry of Central China, and the number of eggs collected at Hankow is incredibly large. The most astounding sight witnessed at that spot, which is full of novelties, is the long procession of coolies carrying eggs in two baskets of 500 each when the junks arrive from a neighboring village. One cannot help wondering the source from which so many eggs arrive, as well as

<sup>9</sup> From J. F. Thorne, *Chinese Eggs . . . Prices, Imports, Exports*, University of Oregon Series, February, 1916.

that such quantities are delivered unbroken without packing material. The fresh eggs are sent to Shanghai for export or are shipped to Europe direct, in cold storage, as Hankow is a regular port of call for ocean-going vessels, notwithstanding its great distance from the sea. There is a British cold storage plant located at Hankow which carries in cold storage to Europe game, poultry, eggs, and meat. This company sends out purchasing agents to collect eggs regularly in certain districts, which creates a ready local market for all the output and that at a maximum price. In another district, the method for marketing is for the farmer to sell to collectors or carriers who, in turn, sell to the wholesale dealers at about 15% profit.

There are not many direct shipments from Hankow to the United States of fresh eggs, but if the Central China egg reaches the American market in its natural state, it is after being forwarded to Shanghai for export to the country which offers the best market at the particular time.

There are, at present, available for transportation of eggs to Hankow the Yangtze River above and below the city, and the Han River, flowing into the Yangtze at Hankow, and navigable for good-sized junks for about 300 miles.

In the Nanking district there are no native poultry or egg specialists who cater to patrons of the industry. The eggs which are placed upon the market are collected by agents of the exporters at the numerous small towns and the markets in the hinterland along the various trade routes, and gathered from house to house in the country districts and shipped to the local factory for sorting and preparation for export.

In the province of Kwangtung, dealers in eggs in the interior purchase from house to house, bringing the eggs to the nearest large market town, where they are assembled and carried down to Swatow and sold to exporters. The eggs are not packed as they are in America, but simply placed in bamboo baskets for shipment.

The egg supply of Hong Kong comes almost solely from the Pearl River delta, the product being gathered in material quantities by Canton and Macao shippers and, as a rule, shipped in bulk in native baskets about the size of an American bushel measure. The eggs are generally imperfectly graded and are rehandled in Hong Kong.

In the Shanghai district, the eggs are purchased by agents of the Shanghai retail produce merchants, who visit the farming localities at regular intervals for this special purpose. The eggs are then transported to Shanghai by rail, canal, or river shipments. The transportation

charges are usually defrayed by the Shanghai merchant who resells the eggs to local exporters. The exporter, in turn, sells the eggs to his clients abroad. The costs of packing, insurance, freight, and the like, are usually borne by the exporter.

In Shangtung, the women of the households go to the markets, held at intervals every five days throughout the province, there to dispose of the 5 to 15 eggs which the household has to place on the market. Generally speaking, the Chinese family is too poor to use these eggs for home consumption, so that the vast majority of eggs produced in the country find their way into the cities for consumption there by the wealthier classes, or for shipment abroad or to the albumen factories.

The whole, fresh eggs are broken into a tin and the cap is then placed in position and sealed, the package frozen, and kept in such condition until wanted for use. It is stated that the eggs must be used immediately, as they will spoil in a very short time after being opened.

## XVI

### POULTRY<sup>1</sup>

#### *Where Poultry Is Produced*

THE great bulk of market poultry is a by-product incidental to the production of eggs, and on specialized egg farms market poultry is entirely a secondary proposition. On general farms, poultry is kept to supply both eggs and poultry for the table and to produce eggs primarily for sale. Under these conditions, the great bulk of market poultry consists of the surplus young males and old stock of all kinds, principally hens, which are sold when they have become unprofitable.

While chickens are raised and marketed in considerable numbers in various areas of the East and on the Pacific Coast, the greater supply is produced on the general farms of the east north central and the west north central states. According to the census for the year 1919, Iowa led in the number of chickens raised with 31,076,091, followed in order by Illinois, Missouri, Texas, Indiana, Kansas, Ohio, Oklahoma, Nebraska, and Pennsylvania. The states of the Middle West not only raise more chickens and other poultry, but they also have a greater surplus above their own needs for shipments to the large cities.

The smaller cities obtain their requirements largely from the territory immediately surrounding them. However, the local production is decidedly inadequate for the large cities, and a large proportion of the supply is drawn from the more remote surplus producing sections. For example, the 1922 receipts of dressed poultry on the New York City market from New York, New Jersey, and Pennsylvania amounted to less than 5%.

#### *The Problem of Transportation*

On the one hand are the large poultry consuming cities, and on the other, the producing areas of the Middle West, with a long distance, in most cases, intervening between them. The problem is one of moving the poultry from the sources of production to the points where it is

<sup>1</sup> From R. R. Slocum, *Marketing Poultry*, United States Department of Agriculture, Farmers' Bulletin No. 1377, February, 1924.



needed in such a manner as to insure its arrival in the best possible condition of quality and with the least possible cost. In the shipment of poultry to New York City, an average haul of at least 1,000 miles is involved. To meet this need there has developed the business of the poultry packer and shipper.

For efficiency and economy in handling, the poultry sold in small lots from the individual farms must be assembled at central points and shipped, either alive or dressed, in larger lots, often car lots. Much of the poultry is dressed before shipment to the final markets, and this requires establishments especially equipped for the purpose. The dressed poultry is highly perishable unless handled at low temperatures, and for this reason the use of refrigerator cars in shipping is essential. To prevent the heavy shrinkage in weight in shipping live poultry which otherwise would be incident to such a long journey, it is necessary to use cars specially constructed for this purpose, which make it possible for the poultry to receive proper care and feeding in transit. The transportation of poultry from the areas of production to the points of consumption involves many complex problems and the performance of numerous services.

### *Seasonal Production*

The production of poultry is not uniform throughout the year. Chickens are hatched and raised in the spring and summer, and the crop of surplus chickens available for sale does not reach large proportion until June or July, and does not continue much beyond January. A majority of the hens marketed are sold during the fall, after they have finished laying for the season. The heavy demand for poultry at Thanksgiving and Christmas also stimulates larger shipments at those times.

The movement of live poultry to market shows much of the same general character as that of dressed poultry, but is more irregular. The Jewish holidays which occur in the spring and fall bring an increased demand for live birds and stimulate the shipments in anticipation of them.

### *The Part Cold Storage Plays*

With dressed poultry arriving on the markets in large quantities during the fall and early winter, and in quantities below the consumptive requirements at other seasons, cold storage is employed to carry over the production during the season of flush receipts for use during

the season of scanty receipts later in the year. Cold storage therefore serves as a balance between supply and demand. Stocks of poultry in cold storage reach their height in January or February and then gradually decline, reaching their low point in the late summer or early fall.

### METHODS OF MARKETING

Producers may market their poultry either alive or dressed. When sold alive by the producer, it may subsequently be dressed by the poultry packer and shipped to market in that condition. Almost all poultry leaves the producers' hands alive, and the process of dressing and shipping to the final markets has developed into a large and specialized packing industry. This industry differs from the meat packing industry in that it is carried on by many comparatively small packing establishments located throughout the poultry producing sections of the Central West, where the fowls that are not shipped to market alive are concentrated and dressed comparatively near the point of production.

Poultry may be marketed by the producer direct to the consumer, through a poultry dealer located in some nearby consuming market, or through a local buyer, who may or may not be an agent for a packer.

#### *Producer to Consumer*

Both live and dressed poultry is marketed from the producer direct to the consumer. The amount of poultry sold by this method is comparatively small, for it requires that the producer establish a contact with the consumer and produce a product of high quality which often is especially fattened or finished. The prices received are good. Usually, delivery is made direct to the consumer or at the producer's own door.

#### *Producer to Poultry Dealer*

The most common method of marketing poultry where the producer is within easy shipping distance of a large consuming market is to ship it alive in coops by express to a poultry dealer who has market outlets and who buys the producers' product on a percentage discount from market quotations. A modification of this method may consist of shipping to meat markets, hotels, or other agencies which retail to the consumer either live or dressed poultry. Except in the case of farms which specialize in market poultry, such as the duck farms on Long

Island, very little poultry is actually slaughtered by producers and shipped to market as dressed poultry.

*Producer to Poultry Buyer or Packer*

The great bulk of the poultry which supplies the large eastern markets, such as New York, is not produced on nearby farms, but averages a haul by rail of 1,000 miles or more from the producing sections. Shipments from individual farms by express for such a distance are impracticable, and so a market channel has gradually been developed whereby carload lots of live, also dressed poultry are concentrated at shipping points. Briefly traced, this channel from producer to consumer ordinarily is as follows: The farmer sells his poultry alive to a local buyer or he ships it alive in coops by freight to a poultry dealer or packer located at a concentrating point, usually a railroad junction. The local buyer may be an independent buyer or an agent or buyer for the packer. Where the packer maintains a number of buying agents along a line of railroad, he may operate a live poultry car or an open box car for bringing the poultry to the concentrating point.

When received at the packing house, the poultry may be sorted out for car lot shipment alive by fast freight or express to the final market. Or, what is more usual, it may be held on the feeding floor for a week to 14 days before it is dressed, chilled, graded, and packed, and then shipped in refrigerator cars to large eastern consuming markets, either for immediate consumption or for holding in cold storage for future sale. The dressed poultry dealers in large markets sell to jobbers or direct to retailers. The business of jobbers is to sell to the retailers, who in turn supply the consumer.

In some of the larger cities, an organization composed of dealers, often known as the poultry exchange or poultry board, formulates rules governing trading in poultry by its members, establishes grades, and maintains a room where dealers may meet for the purpose of buying and selling and considering matters of interest.

### MARKET GRADES AND QUOTATIONS

Market grades and quotations for poultry are not uniform in the different markets. In some markets, where the demand is for birds of certain weights bearing descriptive local names or terms, custom has resulted in the quoting of grades which may not appear in the



quotations of other markets. In the main, however, the different grade terms used indicate fairly definitely the various kinds and qualities of market poultry.

Poultry quotations represent the three main classes, that is, live, fresh dressed, and frozen. The latter is poultry which has been held in cold storage in order to carry it for a considerable period of time.

Various grades are quoted in each of these classes, based upon condition, quality, age, and sex. A few other factors may be recognized in quoting dressed poultry, chief among which are: Scalded or dry-picked, ice or dry-packed, and milk or corn-fed. Style of package and often weight of a dozen birds of a certain grade may be recognized. Quotations may also specify the point of origin as "southern" or "western," especially where market grades are not clearly defined.

As a rule, dry-picked poultry, that is, poultry which has not been immersed in hot water to make the removal of the feathers easier, is of better appearance and has a better keeping quality than scald-picked poultry. It is generally considered of higher grade and of higher value. In some markets, however, no discrimination is made on scalded poultry.

Ice-packed poultry is usually packed in barrels with alternate layers of crushed ice and poultry. Ice packing is generally resorted to only when facilities for freezing or for shipping in refrigerator cars are not available. Ice-packed poultry is not likely to arrive in so good condition as dry-packed poultry, chilled or frozen, and shipped in refrigerator cars. Dry-packed, therefore, commonly is quoted at a higher price.

"Milk-fed" is a term used to designate poultry that has been fattened or finished on a ration of buttermilk and ground grain. Milk-fed poultry is of the highest quality and is invariably quoted higher than unfinished or farm-fed poultry, which is often quoted as "corn-fed."

Poultry properly graded and packed in boxes has a more attractive appearance than that packed in barrels. In addition, it is customary for many packers to put their lower grades, including old cocks, in barrels and their better grades in boxes. For these reasons box-packed poultry is usually quoted at higher prices than barrel-packed.

Quotations on poultry, whether alive or dressed, are usually on the pound basis. There are, however, some exceptions; guineas and pigeons are commonly quoted by the pair or dozen, and squabs, although occasionally quoted by the pound, are usually quoted by the dozen.

Two grades for each of the various classes of dressed poultry are commonly made. The better grade includes those birds which are in



good condition of flesh, clean, well dressed, and comparatively free from pin feathers and tears of the skin. The lower grade includes birds which are in thin flesh, poorly dressed, pinfeathery, hump-backed, or have torn or bruised skin. Culls are birds inferior to both of these grades.

The following market grades of dressed poultry are in common use and some or all of them will be found in every important market:

*Broilers*—Broilers are immature chickens, usually young males, weigh from three-fourths to  $2\frac{1}{2}$  pounds each, or 9 to 30 pounds to the dozen. The lighter weights are sometimes quoted as squab broilers.

*Fryers*—Fryers are immature chickens which, as a rule, weigh from  $2\frac{1}{2}$  to  $3\frac{1}{2}$  pounds each, or 30 to 42 pounds to a box of one dozen birds.

*Roasters*—Young chickens which weigh 4 pounds or over are usually called roasters. A box of one dozen will weigh 48 to 60 pounds or more, net.

*Stags*—Sometimes young males which have matured to some extent, show spur development, and have begun to get stringy and hard in flesh are termed stags. Stags are less desirable and bring a lower price than soft-fleshed chickens.

*Springs, or springers*—Springs is a term commonly used to designate all young stocks hatched during the preceding spring and early summer. In a more restricted sense, it is sometimes used to designate a class of chickens corresponding to fryers.

*Capons*—Capons are unsexed male chickens. When marketed at an age of 7 to 10 months, they weigh from 5 to 10 pounds each and still retain their softness of flesh. The heavier capons are usually quoted at a higher price than the lighter capons. Slips are birds which have been caponized but on which the operation was not completely successful. The price of slips is considerably below that of capons.

*Fowls*—Fowls are mature females and are generally divided into several grades, according to the weight per dozen or per fowl.

*Old cocks*—Old cocks are mature males. They have entirely lost their softness of flesh and constitute one of the lowest-priced classes of poultry. Sometimes they are quoted under the class name of old roosters.

## MARKETING POULTRY ALIVE

With the exception of a small amount of poultry dressed by producers to supply a local retail trade and that marketed by certain specialized farms, such as the Long Island duck farms and the goose fattening farms in Wisconsin, most poultry is sold or shipped alive by the producer. This practice is most common because the average producer is not an expert in dressing poultry and because he does not

have the proper facilities for slaughtering, chilling, grading, packing, and shipping. Also the quantity of his output is not sufficient to make the installation of such facilities practicable. Most of the poultry marketed by producers, therefore, is sold alive.

In some sections where turkey raising is common, it is customary for buyers to go into the farming districts in the fall and purchase turkeys from the farmers. Frequently the birds are driven through the country in large flocks, these "turkey drives" sometimes numbering several thousand birds when herded into the railroad town, where they are either shipped alive in car lots or are slaughtered and dressed for market.

At the larger eastern markets, especially New York, receipts of live poultry from nearby points are not sufficient to supply the demand, and it is necessary to obtain shipments in car lots from the poultry packers or shippers in the western producing sections. A large part of the demand comes from the Jewish population, which requires the poultry to be killed by a rabbi. This demand for live poultry is especially heavy, and prices are usually somewhat higher, in the spring and fall at the time of and just preceding the Jewish holidays. There is a fairly steady demand for live poultry from consumers other than Jewish, who prefer to buy alive and to do their own slaughtering; most of these are foreigners.

There also exists a limited demand for live poultry from automobilists at producers' farms, particularly along well traveled automobile routes, and many producers have established a reputation for especially desirable table poultry. The possibilities of breeding, rearing, finishing, and marketing table fowl of fancy quality to supply a discriminating consumer trade have been little appreciated, yet the opportunities for profitable poultry marketing of this kind are great.

### *The Chicago Live Poultry Board*

In order to systematize the central quotations on live poultry in the Chicago market, a large number of the leading traders have organized an exchange at which they meet each morning at 9 o'clock for a few minutes of competitive bidding. The system used is for those who have poultry to offer on their own account, or for the shippers who have consigned to them, to have placed on the blackboard their offerings with offering price. The buyers then indicate their offers on the lots listed. In the course of a half hour of trading, the chairman of the meeting attempts to get the bidders and sellers together on

quotations for each grade of live poultry. The prices so made control, to a large extent, the cash sales made on the Chicago market during that day and are wired out throughout the producing districts of the United States to serve as a basis for the making of country prices.

### *Express Shipments*

Producers who live near good consuming markets commonly ship the surplus cockerels and the hens which they are culling from the laying stock by express to a poultry dealer. In most markets, certain days of the week are more favorable for the sale of poultry than others.

### *Freight Shipments*

In the producing sections of the Middle West, most live poultry is shipped by freight or automobile truck.

Local buyers generally coop and ship the poultry to a packer by local freight or automobile truck. Often a stock car which provides plenty of ventilation is used for live poultry shipments, the coops being piled in tiers as they are loaded at the shipping points. At the packing house the birds are unloaded and placed in coops to await final disposal.

Live poultry transportation cars built especially for the shipment of live poultry are often used. They are constructed with an aisle in the center with the coops on each side, one above another, from the floor to the roof.

### *Shipping Dressed Poultry*

Dressed poultry is usually shipped by the producer comparatively short distances to market; and, as ice-packed shipments must be moved quickly, express shipments are generally resorted to. Even then there is always danger of dressed poultry spoiling if delayed en route. Where dressed poultry is to be shipped long distances, such as from the packing houses of the Central West to the consuming markets of the Atlantic seaboard, it is out of the question to use local express service. Such shipments must be handled safely, and therefore generally are moved in car lots by refrigerator freight. Either ice-packed or dry-packed may be shipped in refrigerator cars if the car is kept properly iced.

In icing a car for shipping poultry, salt is used and the car is closed to allow the temperature to be reduced to 35° F. or less before loading begins.

The period of time dressed poultry may be held in cold storage

varies. Most poultry moves out of storage within a year's time, but it can be held for a longer period in good condition. There are various state laws regulating the cold storage of dressed poultry and other products, some of which provide that the dates on which the poultry goes into and comes out of storage must be marked on the packages. Also, limits are placed on the length of time that poultry can be held in cold storage.

When dressed poultry has been held in cold storage, it is preferable to market it while in a frozen condition.



## XVII

### DAIRY PRODUCTS<sup>1</sup>

#### I. MILK

##### MARKETING DAIRY PRODUCTS

WHEN dairymen were able to sell their milk or butter and cheese directly to ultimate consumers, the problem of marketing dairy products was not a complex one. But when it is considered that now the milk supply of the New York consumer comes daily from a northern New York or Vermont dairy farm; that the Wisconsin dairyman markets his milk in the form of cheese through some retail grocery store, which may be in Texas; and that at a certain time of the year Pacific Coast butter may be found in Atlantic Coast markets, some idea of the changes which have necessarily taken place in marketing methods may be gained.

Along with the growth of cities has been a growth in the size and extent of the dairy industry, and the manifold changes which have taken place in marketing and distribution have not occurred without the introduction of many difficult problems. Aside from the fact that the marketing of an increased volume of any product introduces a necessity for improved facilities, there have been added problems in the marketing of dairy products on the present large scale.

Many dairy products are highly perishable. Milk shipped great distances must be served to the city consumer daily in a fresh and sweet condition if it is to be used at all. This means not only cleanliness in production but speed and the maintenance of low temperatures throughout the entire journey from the farm to the consumer's door. Ice cream requires special handling and constant attention for successful marketing. Butter and cheese are less perishable, and the great distances which these products are frequently shipped and the long periods they are held make it necessary to provide adequate refrigeration in order that they may reach the consumer in a suitable condition. But perishability and distance between producer and consumer are not

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<sup>1</sup> From C. W. Larson and others, "The Dairy Industry," United States Department of Agriculture, *Yearbook*, 1922.

the only problems which have had to be faced in marketing the products of the dairy. The process has been further complicated by variation in seasonal production. This has meant surpluses and shortages, with the resulting influences on prices. A discussion of some of these fundamental problems and the progress made in their solution follows.

### TRANSPORTATION BY RAIL

Transportation has been a factor in marketing dairy products since the establishment of the first commercial creameries and cheese factories, but increasing demand for milk by rapidly growing cities and the development of distant producing territories have revolutionized transportation methods. The transportation requirements of milk are more difficult to meet than those of almost any other commodity. Produced over widely distributed areas, often in small quantities, milk must be transported daily to the very doorstep of the city consumer. The service must be regular, and it must be rapid. Delays mean a deteriorated product. Furthermore, milk must be kept cool or it will sour quickly and become unsuitable for use as fluid milk. Maintenance of low temperatures in transit is a fundamental requirement and is best accomplished by the use of special refrigerator cars, which are usually provided on the railroads carrying milk to the larger cities. A common method of keeping the milk cold in the cars is by means of a refrigerated milk car containing cans of milk covered with blocks of ice.

A later development in milk transportation on a large scale is the tank car. These tanks are either inclosed in cars or are separate units, several to the car, which can be removed by derrick and placed on trucks for hauling to the city plant. The principle of a vacuum bottle has been applied to some of the tanks, although merely a steel tank, glass or porcelain lined, is the more common form. The tank car gives a promise of becoming quite satisfactory for handling such milk shipments as those which are made from country receiving stations to city plants. Where the quantity of milk transported is small and the shipments of necessity are made in ordinary cars, different precautions have to be taken, one of the commonest of which is the use of insulated can jackets. Improvement in the facilities for handling milk has made longer hauls possible.

The most important sections now producing manufactured dairy products, especially butter and cheese, are located in the Middle West

and are distant from the large consuming markets. Both butter and cheese are less perishable than milk, and hence the necessity of daily delivery to the consumer does not exist. But the long distances which these products are shipped require that protection in shipping be provided. In meeting this condition, not only has the refrigerator car been utilized but fast freight schedules have been established, so that the movement is reasonably rapid for freight service. In the highly developed dairy sections, regular freight schedules often provide for pick-up refrigerator cars, which, for example, may move a certain day each week, and which are loaded at local stations, later moving in fast freight trains to the large markets. Certain creamery organizations which are favorably located to take advantage of such a plan are now concentrating less-than-carload shipments into car lots, thereby effecting the saving in freight charges which the car-lot rate offers. The warehouse system of handling cheese in Wisconsin also results in a similar concentration of cheese at various points throughout the cheese producing sections, although there the concentrating is done by individual dealers as well as by factories cooperating through their own organization. In severe winter weather it sometimes becomes necessary for heat to be provided in cars carrying cheese, on account of the danger from freezing.

### TRANSPORTATION BY HIGHWAYS

Highways are used in the marketing of almost every gallon of milk consumed. Whatever other means of transportation may be utilized between the point of production and the consumer, the highway is nearly always the method of transportation from the producer to the first point of concentration. This is true, whatever form of processing the milk goes through before it is ready for consumption. In the case of milk delivered to city creameries, milk condenseries, and city milk distributors, the amounts carried over the highways depend upon the area of the district from which the milk supply is drawn and upon the condition of the highways. Many of our largest cities are now receiving the greater portion of their milk supply exclusively over the highways without intermediate rail shipment. Cincinnati, with a daily consumption of 190,000 quarts, receives less than 3% of its supply by rail shipment. Kansas City, with a daily consumption of 133,000 quarts, receives about 75% of its supply by trucks and wagons. Atlanta receives about 90%, and Indianapolis about 60% of the daily supply



by trucks. Milwaukee receives about 65% of its daily 120,000 quarts by trucks.

Before the advent of the motor truck and good roads, it was necessary, with horse-drawn equipment and unimproved highways, to use rail transportation for distances over several miles. However, this range has now been considerably increased. Cost figures for milk collection around Kansas City and Minneapolis show that for a 30-mile haul the rate for shipment by truck is less than one-half of the cost of delivery to the railway station and delivering it from the station to the milk distributor. Similar figures for Detroit show that at the present time a dairyman 60 miles from the city can ship by truck for approximately the same rate as charged by the railroads.

On longer hauls the costs of collection are secondary in importance to the time required for collection and to the condition of the milk on arrival. A case is cited from California where it was found profitable to ship milk 134 miles by truck on account of the better condition of the product on arrival. The greatest difficulties of long-distance milk transportation lie in spoilage due to overheating and churning in transit, caused by hot weather and continued jolting over the road. It has been found that the use of insulated tanks mounted on trucks has to some extent eliminated these difficulties. These tank trucks are quite widely used at the present time. Churning is prevented when the tanks are loaded to capacity, and experiments have shown that on trips on hot days the rise in temperature is usually less than 1° F. per hour.

To the farmer and dairyman, improved highways and motor transportation have meant not only a lower marketing cost for milk, but also the extension of the possible marketing area. The experience of eastern dairymen has shown that with the use of trucks the average distance to market can be increased considerably, because the farmer is now in a position to take advantage of markets which in the past were often restricted to small groups in favorable locations.

The development of motor truck transportation offers an additional distinct advantage in many localities to both the dairymen in the country and the milk distributor or manufacturer of dairy products in the city. When railroads were the sole means of transportation, there was hauling from the farm to the shipping station and again from the city railroad station to the city plant. It is now common for the truck from the city plant to call at the farmer's gate. Not only is the farmer's time available for other purposes, but the terminal charges and delays are also eliminated.



The value of highway transportation as a means of marketing milk cannot be adequately measured in terms of money. It is essential to the furnishing of a necessity of life to many millions of people and as such is beyond any accurate measure of value that can be devised. Every improvement in the highway itself or in the vehicle used for transportation results not only in a great saving due to reduction of marketing costs, but also in supplying more and better milk to the millions of people living in the larger cities.

### MARKET DISTRIBUTION OF MILK

It is estimated that approximately 45% of the total milk production of the United States is used as fluid milk for household purposes. This, of course, includes the vast quantities of market milk brought into towns and cities throughout the country. With fluid milk so generally used, it is probable that the average consumer is more familiar with the channels of milk distribution than with those which manufactured products follow. The journey from the dairy farm to the consumer's door involves many problems, however, and these increase in number and scope as the distance between the two becomes greater. Except for the larger cities, local or nearby production is adequate for city milk requirements, and the pasteurizing, cooling, bottling, and such other processing as may occur are done in the city plant. Milk going to the larger cities, however, is frequently handled through receiving stations which are conveniently located out in the country producing sections; from these the milk moves to the city in refrigerator cars. While milk distribution in the small city is more or less simple, it is obvious that only through capable management and a highly complicated system of distribution can the large city be supplied with fresh milk daily at all seasons and through all kinds of weather.

### 2. BUTTER

#### *Market Distribution of Creamery Butter*

Dairy farms from which the product is marketed through creameries or butter manufacturing plants generally represent a somewhat different system of farming from that followed on farms where the whole milk is sold, in that commonly, as now practiced, such farms market cream only, the skim milk being kept for feeding young stock, hogs, or poultry. There are, of course, quite a number of creameries which receive whole

milk, but even in these cases skim milk is usually taken back to the dairy farms and utilized as mentioned.

Three general types of creameries are to be found in the United States. First is the cooperative creamery, usually a local enterprise depending upon local production for supplies, although several cooperative centralizer creameries are now in operation. It may be noted, however, that some creameries whose names indicate that they are cooperative are not cooperative under a literal interpretation of the term. Strictly cooperative creameries operate on the principle of returning all income to producers above that required for operating expenses, depreciation, reserve, and so on. The second type is the local creamery owned by private interests, which usually pays dairymen an agreed price in relation to some recognized current market quotation. This type of creamery procures its supplies for the most part locally. When a larger territory is covered and shipments from a distance are received, creameries are commonly referred to as centralizers, and there are throughout the Middle West a large number of plants of this type, some of which have enormous outputs and receive cream from individual dairymen and through local cream buying stations, which serve as collecting and shipping agencies.<sup>2</sup> It is the common practice to do the weighing and testing at these stations, and quite frequently payments are handled there also. Creameries follow different plans of paying for cream, some paying monthly, some twice a month, and others daily. Cooperative creameries, of course, do not make payments until returns for products sold are received.

There are various channels of trade through which butter may pass from producer to consumer. The general custom of country creameries in shipping butter to the larger markets is to consign to a receiver or to contract with the receiver for the butter on the basis of the market quotation. It is common practice for creameries to draw a sight draft against such consignees, through which an advance of 15 to 25 cents a pound is secured. Often receivers send out to producing sections field representatives who go among creameries and solicit their output. Local demand offers some outlet to local creameries, although with many creameries which are in small towns and villages this demand absorbs only a small fraction of the total butter made. Butter going to the larger markets is for the most part packed in bulk in tubs or cubes.

Receivers in the markets may be wholesalers or jobbers, or both. In the largest markets wholesalers and jobbers are usually separate

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<sup>2</sup> These creameries obtain cream by direct shipment from long distances.

dealers, while in the smaller markets nearly all wholesale receivers also do a jobbing business, supplying retail stores, hotels, restaurants, and the like. The wholesalers' business consists of car lot and large less-than-car lot sales to distributors who handle a jobbing business.

Many of the larger creameries have developed private brands and distribute their butter directly to the retailer, maintaining branch distributing houses or contracting with distributing houses or contracting with distributing agents to handle certain territory. Many of the extensively advertised brands are handled in this way. Vast quantities of butter are also handled under brands by the meat packing companies through their local branch houses.

### *Butter Prices*

The call board method of making the price of butter in the Chicago and New York markets is entirely similar to that described for eggs. Central trading in butter to establish common wholesale prices was started at the small city of Elgin not far from Chicago. For many years after Elgin ceased to be an important cash butter market, traders from Chicago went to Elgin once a week and there made their bids for and offerings of tub butter. The resulting prices established were wired throughout the United States and became the basis for payment for butter and butter fat for the week. Farmers complained that they were receiving artificial prices for their dairy products based on "a price arbitrarily set by a small group of traders who actually purchased very little of the product there." The traders in reply, said, that although the volume of sale might be very small, the potential volume of supply and the potential demand represented by the group present during the trading in fact brought to bear indirectly upon the market all of the significant forces of supply and of demand. During the war, the Elgin Butter Board was discontinued. Since that time, quotations have largely been based on call board prices established similarly, but for each day, by the Chicago Mercantile Exchange.

A futures butter market is also maintained by the Chicago Mercantile Exchange, the basis of trade being ninety score butter or creamery firsts.

## 3. CHEESE

### *Market Distribution of American Cheese*

American-type cheese is made from fresh milk, and for this reason cheese factories are local establishments which depend on local production for their supply. These factories may be cooperative or privately



owned, and, depending upon which type they are, the method of paying for milk is similar to that followed by creameries in paying for cream. On account of different market requirements, several different styles of cheese are found on the market. Style refers to the size and shape of the cheese and not to the type.

Cheese is usually sold outright by factories to nearby dealers, who may be affiliated with a large distributing agency. Wisconsin and New York are the two large cheese producing states, and in both the warehouse system is followed. Cheese is shipped from the factories to warehouses scattered through the principal cheese sections, where weighing, paraffining, and boxing take place. Prices to the factory and to the dealers' customers are usually based on the current quotations established as a result of trading on cheese boards.<sup>3</sup>

Immediately after the cheese board meetings, independent dealers wire their selling prices to customers, such as wholesale grocers, wholesale distributors of dairy products, exporters, large retail buyers, and so on. If prices are satisfactory, orders are received, and these are filled out of the supply on hand or the incoming cheese for the week. Competition is so keen among cheese dealers that business is done on very small margins. Cheese bought may be shipped direct to the customer, or may at his direction be placed in storage, either at the place where bought or at some central point. Dealers who are affiliated with large distributors, such as the packers, handle their current receipts on a brokerage basis with an outlet always at hand. In the large markets there are cheese wholesalers and jobbers who buy either through their own country representatives or from independent dealers. Retailers obtain their cheese either from the jobber or the wholesalers. Because of the small quantities of cheese retailed by the average grocer and the resulting heavy shrinkage and wastage, some preference is being shown for a 5-pound cheese, which helps eliminate some of these losses.

### *Other Types of Cheese*

The system just referred to is not followed in the distribution of

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<sup>3</sup> EDITOR'S NOTE: Some years ago there were several cheese boards in operation in the State of Wisconsin. More recently most of these have been abandoned and the work has been largely confined to the Plymouth Cheese Board of Plymouth, Wisconsin. This market is the national basing point for cheese prices, although the trade in cheese is actually greater in Chicago than at Plymouth.

There is also a Farmers' Cheese Board at Plymouth, instituted by producing interests who feared that the old organization was too much dominated by the buyers, particularly the few outstanding buyers of large volume.



other types of cheese. The foreign types, such as Swiss and Limburger, are usually handled in the larger markets by dealers who specialize in such types. These dealers may have direct connections with country buyers or may maintain their own branches in the country. Such dealers are jobbers as well as wholesalers, supplying grocers, delicatessen stores, hotels, cafes, and the like. They handle both domestic and imported goods of the foreign type as well as domestic soft cheeses.

#### *The Sale of Pasteurized Cheese and Packaged Cheese*

Recently there has been an increase in cheese consumption, and much of the increase has been consumed in the form of package cheese. This cheese is reworked in large establishments, pasteurized, and placed in attractive cardboard packages. This method of preparing cheese for the market entirely changes the marketing organization, since it is now a standardized product produced on a large scale by a few large concerns and is sold and advertised under a brand. A large amount of space in popular magazines has been used for cheese advertising which could not have been effectively employed with bulk cheese. In most cases the producing company puts its own brand on the cheese, but for large distributors which have previously established a cheese trade the processing company frequently merely processes for them and places in packages bearing the distributor's brand.

#### 4. CONDENSED AND EVAPORATED MILK

##### *Market Distribution of Condensed and Evaporated Milk*

Condensed and evaporated milk in bulk form for use principally by ice cream manufacturers and bakers is made in numerous plants throughout the country, some of which are comparatively small. This class of goods is not placed in sealed tins but is handled in larger containers. It is often found that firms using these products have standing orders for the regular delivery of certain quantities for current use; while this ordinarily is used immediately, reserve stock is frequently carried in cold storage. Large users of bulk condensed and evaporated milk usually have their own manufacturing equipment.

Most of the condensed and evaporated milk produced in the United States, however, is put on the market in sealed tins, packed in wooden or fiber cases. All goods of this class are sold under a brand. Practically every manufacturer has a standard brand, but numerous other brands are also on the market. These may represent private brands of distributors such as wholesale grocers, or even large retailers, such

as chain stores, which contract with manufacturers to pack goods under their own advertised label or trademark.

Large manufacturers of canned milk maintain their own sales organization, with branches and stocks in warehouses in the principal distributing centers, especially export points, but smaller manufacturers frequently market their goods through local brokers at various important trade centers. The wholesale grocer is a big factor in the distribution of the product.

Domestic demand for condensed and evaporated milk is increasing, but the relative ease of securing fresh milk has retarded this demand. Good domestic demand is found in places near which dairying is not followed, such as mining and lumber camps and in arid sections, although these outlets are limited. The fact that the products may be bought in practically every grocery store accounts in the aggregate for vast quantities being used in households even where fresh milk is obtainable.

### MARKET DISTRIBUTION OF OTHER DAIRY PRODUCTS

Because of perishability and the necessity for frequent icing, the distribution of ice cream is limited to local territory or to territory which may be reached by rapid transit without delay. Marketing of ice cream is usually direct from manufacturer to retailer or from manufacturer to consumer. In the larger cities there are concerns which manufacture ice cream on a more or less large scale and whose outlets include various retail establishments, such as confectionery stores, soda fountains, restaurants, cafes, also family trade. Many retailers, however, produce their own ice cream. Ice cream distribution to retail trade involves considerable service, for the product spoils rapidly if not kept properly iced. Frequently, manufacturers provide this service for customers, also furnishing refrigerated cabinets for holding the product under proper conditions.

Powdered milk is one of the new manufactured dairy products. Outlets for powdered milk are being developed, but thus far the greatest proportion has been used by bakers, confectioners, and ice cream manufacturers. This product is usually made from skim milk. Some powdered whole milk is made, but the higher prices which must be secured, as well as the poorer keeping quality, have limited its use.

The drying of skim milk represents the utilization of a valuable by-product. Buttermilk is also dried, this product being used exten-

sively for hog and poultry feeding. Both of these products are relatively new, and channels of distribution have not been fully developed. Cost of equipment has limited manufacture to a relatively small number of firms, and as a result the selling is done either through firm representatives or through brokers.

### COLD STORAGE WAREHOUSING

Without a means of providing for a more even flow of dairy products into consumptive channels throughout the year, there would be surpluses during flush seasons and shortages during months when dairy production is lowest. Since dairy products constitute important items in the diet of the average person, such a condition would be indeed unfortunate, regardless of the influence which it might exert upon prices. Cold storage warehousing, therefore, offers obvious advantages to the industry and to the consuming public.

Extensive cold storage facilities are used in the distribution of creamery butter. Consumptive demand is not constant, varying according to price levels, season, weather, and other influences, but it is a more constant factor than butter production, and normally is greatly in excess of current production. While it is impossible to measure price changes which would occur if butter were not stored, it is more than likely that violent fluctuations would result.

The movement of butter and cheese into storage follows closely seasonal increases in production. During the months of May, June, July, and August, stocks are being continually added to, but the heaviest increases normally occur during June. Seasonal changes in storage holdings are striking, and both the inward as well as the outward movements occur about the same period each year. The peak of holding occurs usually in September, and stocks are normally lowest about May 1. Butter and cheese which are placed in storage during the month of June are in greatest demand later in the season. Being produced during the flush season, when conditions are most favorable for highest quality, such goods keep better in storage and are as a result more suitable to the trade when taken out of storage and placed on the market for current sale or use.

Cold storage facilities are available at various points throughout producing sections and in all the larger cities, although in a number of cities storage space is not ample to provide for local needs, in which cases it is necessary to store at distant points and ship goods in as they



are needed. There are approximately 400 public cold storage warehouses in the United States where butter and cheese are stored.

Cold storage charges are based on the commodity stored and the space occupied. Different conditions and temperatures are required for different products. Butter is best held at temperatures around zero Fahrenheit. At temperatures higher than this there is danger that the commercial quality will be impaired. Cheese undergoes certain changes while in storage which, if proper conditions as to temperature are provided, result in improvement of the quality. This is usually referred to as ripening. In this respect cheese differs from butter, as butter has a tendency to deteriorate even under the most favorable conditions. Butter is stored to relieve shortages. Cheese may be said to be stored for a similar purpose, but also to improve the quality. So-called aged cheese is that which has been held in storage.

The financing of such large quantities of butter and cheese as are placed in storage each year involves vast sums of money. These holdings are financed for the most part by members of the distributing trade, as ownership of the goods usually passes from the hands of the creamery and cheese factory very shortly after the goods are manufactured. The reason for this is that very few manufacturers are financially able to handle a storage operation, because of limited capital and the fact that the dairy farmers who furnish raw material must be paid for it at least monthly. The more common plan followed by the trade in financing storage holdings is that of securing loans, using warehouse receipts as collateral. Loans are secured from the cold storage warehouses themselves or from banks. Amounts ranging up to about 75% of the value of the product are frequently advanced on such loans, this being considered a safe risk. The actual risk incurred is not only deterioration in quality or grade but also the danger of declining prices. In some cases, price declines are so great that goods are surrendered to those making loans, and they have to be sold in order to realize on the loan and to cover carrying charges.

### GRADING OF DAIRY PRODUCTS

The grading of butter and other dairy products is a difficult task which requires much experience, since the senses of smell and taste are relied upon to a large extent. The grade of butter, for example, is determined by an examination during which the flavor, body and texture, color, salt, and package are taken into consideration, as a result



of which a score or grade is placed on the lot. The requirements for various grades usually include a minimum score, although this is not always the case. It is the common practice in the large markets, where official inspections of butter and cheese are made, to use the score card system, which recognizes specific values for each of the several points upon which the product is judged. On the butter score card the distribution of the points is as follows: Flavor, 45; body, 25; color, 15; salt, 10; package, 5; total, 100 points.

Butter scores and grades are quite well defined and understood in the large markets, but this is not so true of cheese, although there is a growing tendency to place the buying and selling of cheese more on a definite grade basis. Market requirements for cheese differ so much and the methods of marketing are so entirely different from butter that progress in grading cheese has been slower.

#### *United States Food Products Inspection Service*

In addition to the inspection services which are maintained by the various trade exchanges, the United States Department of Agriculture now provides for butter inspections at New York, Chicago, Philadelphia, Boston, San Francisco, and Washington. Such inspections are made upon application of anyone having a financial interest in the product concerned. The cost of these inspections is relatively small, the minimum charge being one dollar, and a car lot averages only three dollars. These fees are paid by the applicant.

The Federal inspection service applies the same standards and the same methods in all markets. As the service develops and comes into greater use, it is expected to result in the adoption of uniform standards in the different markets, a condition which does not exist today. Increasing production of butter and intermarket movements make the recognition of a uniform standard highly desirable, and when this is accomplished it will result in the establishment of market values on a more satisfactory basis than at present.

#### *Prices of Dairy Products*

One of the outstanding influences affecting prices of all dairy products is the variation in supply as determined by seasonal production. Dairying is favored during the spring and early summer by weather conditions which make for natural pastures and which result in the heaviest production occurring during that time. Close to half of the annual production of creamery butter, for example, occurs during the months of May to August, inclusive, and with this heavy volume thrown

on the market, prices are bound to react, declining under ordinary conditions.

### HOW PRICES OF DAIRY PRODUCTS ARE ESTABLISHED

Prices paid for milk sold to city distributors are arrived at by various methods, ranging from the arbitrary naming of buying prices by dealers to the establishing of selling prices by producers through their own selling organization. Milk prices have been the cause of many bitter disputes between producers and dealers. This has resulted in the formation of many producers' marketing organizations, which in some cases have undertaken the retail distribution of milk.

While for some cities prices to be paid producers may be named and for others may be arbitrated, it is practically without exception the case that if a price is not named in advance a basis is named or agreed upon. For example, a definite price per hundred pounds may be agreed upon and accepted, or the price may be based upon some current published butter or cheese quotation.

Milk for nearly all the larger cities is bought under the so-called "surplus" plan, that is, an agreed price is paid for milk delivered by producers up to a certain amount, beyond which a lower price is paid for such surplus as may occur.

#### *Basis for Butter Prices*

Wholesale butter prices the country over are quite generally based on wholesale quotations at New York and Chicago. It is to these two markets that the great bulk of the surplus production is shipped, and also in those cities the greatest wholesale demand occurs. In both New York and Chicago wholesale butter prices are published by commercial reporting agencies and by the United States Department of Agriculture. In order to arrive at these quotations, market reporters attend the sessions of the wholesale exchanges, later canvassing the trade in order to secure complete information as to selling prices and the tone of the current day's market.

Establishing quotations as a result of exchange sales is a method which has been followed in certain markets. But whether prices of closing sales or of the majority of sales have been accepted as official quotations, this method has not met with the greatest favor. Sales on exchanges usually represent but a small percentage of the total business in the market, and the possibility that such sales are not representative

of the market have brought forth so much criticism that this method is not in general favor among the butter trade.

Both of the above methods were followed at different times in making prices on the old Elgin Board of Trade, which prices were used the country over a number of years ago as a buying and selling basis. The Elgin board was suspended through Government order in 1917. The Chicago and New York market quotations now form the basis of most wholesale trading which takes place, although local quotations are often used for local or nearby business.

Butter market quotations are not only used in buying and selling butter, but are extensively used in buying milk and cream on the butter fat basis. It is quite customary for creameries to bid for cream, naming a butter fat price based upon some well known market's quotations. Frequently milk dealers buy milk in the same way.

#### *Basis for Cheese Prices*

The bulk of the cheese marketed by cheese factories is sold on the basis of weekly cheese board quotations. Cheese boards are local exchanges where goods are sold by auction to the highest bidders. At present there are but two active cheese boards, both located at Plymouth, Wisconsin, although in former years numerous boards were located at various points throughout the cheese producing sections of Wisconsin, also in New York State. The two Wisconsin boards meet on Monday, one meeting following the other, and as a result of trading which occurs, prices for the various types are established which serve as a basis of trading until the next board meetings the following week. Actual selling prices may vary from day to day from board quotations as market conditions warrant, but ordinarily no radical fluctuations occur oftener than once each week. New York State cheese boards, which were more or less inactive for several years, are practically not functioning now.

### COOPERATIVE DAIRY MARKETING ORGANIZATIONS

Cooperative organizations of dairymen in the form of cooperative creameries and cheese factories have been established for many years, such organizations being local enterprises whose activities are largely confined to manufacturing. There are many of these successful cooperative organizations throughout the United States, although the largest number are located in Minnesota, Wisconsin, Michigan, and



Iowa. For the most part, however, organizations of this type have devoted very little attention to the marketing of their manufactured product, merely shipping it to wholesale dealers in the large markets or supplying the local trade as demand developed.

### THE TARIFF ON DAIRY PRODUCTS

The tariff on dairy products has been a factor in international trade. Changes have been made from time to time in the tariff schedules. The early tariffs applied especially to cheese, but as other products have become important in international trade, those have been added. The present tariff applies to eight specific dairy products, and all the rates are subject to change after investigation by the President.

### FOREIGN TRADE IN DAIRY PRODUCTS

During the war period from 1914 to 1919, exports exceeded imports, when all dairy products are taken into consideration, but in 1920 and 1921 more butter was imported than was exported, a similar condition prevailing also with cheese during 1921. The imports of butter during 1920 and 1921 were mostly from Denmark, where a rapid return to normal conditions following the war resulted in such a surplus of butter that it became necessary to seek new outlets. The United Kingdom had been Denmark's largest prewar market, but during the entire year 1920, food control requirements limiting butter consumption remained in force in that country, and Denmark was able to export to the United States, pay the import tariff, and realize a return materially higher than could be obtained on her own markets. With England now again in the market, the former demand for Danish butter there has been renewed, and this, together with a high protective tariff, has diverted Danish butter from the United States.

Cheese imports during 1921 were largely from France, Italy, Argentina, and Switzerland, principally foreign varieties, with domestic varieties from Canada. Considerable progress was made in this country during the war in developing the manufacture of foreign varieties and this, together with the tariff, will probably affect future imports of cheese.

Exports absorb annually large quantities of condensed and evaporated milk. During 1920, out of a total production of 1,578,015,000 pounds, exports amounted to 411,077,982 pounds, and of the 1921 production of 1,464,163,000 pounds, exports were 289,677,247 pounds.



## XVIII

### FRUIT AND VEGETABLES<sup>1</sup>

#### DISTRIBUTION IN WHOLESALE MARKETS

THE sale of fruit in the special or retail markets by growers to consumers or retail concerns is a direct sale which requires no detailed description. The great fruit-growing districts, however, are largely dependent upon the large wholesale markets where they dispose of their crop in many different ways. In speaking of the sale of fruit by growers it is, of course, understood that they may act either individually, or jointly through a cooperative association or exchange.

1. Many fruit growers sell their fruit to local dealers or shippers under any one of various kinds of contracts. They may sell the orchard as a whole, the dealers agreeing to accept the fruit on the trees, pay a lump sum for the crop, and perform the necessary picking, sorting, grading, packing, and hauling. They may sell their fruit "on the table," in which case the growers do the picking, and hauling while the dealers furnish the packages, perform the sorting, grading, and packing, and pay an agreed amount per barrel, box, or other unit. The growers may sell "f. o. b. loading station," that is, they may receive so much per barrel or box delivered at the shipping station, all intermediate work being done by them. They may also sell their crop for delivery at the dealer's packing warehouse, at so much per barrel or other measure, the dealer preferring to prepare the fruit for final shipment to the wholesale markets.

Local dealers or shippers of this kind may confine their marketing activities to particular localities, or they may act as traveling buyers. They may purchase fruit locally to fill orders received from the central markets, or they may undertake to locate buyers after they have purchased fruit from the grower. They may have standing connections with a central market wholesale dealer, or they may depend upon central market commission men or brokers to whom they consign their purchases. They are sometimes known as brokers, but should

<sup>1</sup>From Grover G. Huebner, *Agricultural Commerce* (New York, D. Appleton and Company), pp. 305-313.

be clearly distinguished from the more commonly known fruit and produce brokers who transact business at the large central markets.

2. Fruit and produce growers may sell locally to or through so-called "fruit distributors," or "marketing corporations," who usually resell direct to wholesale jobbers for cash f.o.b. or subject to inspection on arrival, through auction companies, or in any other manner, and who receive a brokerage charge of from 5% to 15% on the gross sales. Some of them also buy fruit from the growers on their own account, thereby acting as dealers. One of the largest distributing concerns is the California Fruit Distributors, which handles about 75% of the entire deciduous fruit shipments of California.

Distributors operate under contract with large numbers of growers. The contracts covering the marketing of western cantaloupes, for example, usually include clauses providing for the payment of a stated commission by the grower and an agreement on his part to plant a specific acreage, to pick, pack, and handle the crops in a first-class manner, and to deliver the cantaloupes at specified shipping sheds in good condition. The distributor, on his part, may agree to furnish seeds and crates at agreed prices; to provide a shipping shed, for the use of which an additional shed fee may be collected; to make agreed advances to the grower before his crop is sold; to load the packed cantaloupes into properly prepared freight cars, guarantee freight and icing charges, handle freight claims, use his best efforts in the marketing of the cantaloupes, and permit the grower to inspect the original account of sales of every car shipped for the grower's account.

3. Somewhat different from the local marketing agencies referred to above are the so-called fruit or produce "exchanges," which usually are private stock companies and not exchanges in the sense this term is used in the grain, cotton, and live stock trades. Local marketing agencies of this kind usually distribute fruit and produce for growers or growers' associations subject to their order and receive a brokerage charge for services rendered.

4. The primary distributor of fruit and produce arriving at the central, wholesale markets are known as car-lot wholesalers. These concerns obtain their supply in many different ways, for in addition to the fruit purchased from the growers by mail orders or traveling solicitors, they buy through commission men, brokers, and auction companies, or from local dealers and distributing concerns, and local dealers sometimes act as buyers for them. Car-lot wholesalers, in turn, sell most of their supply to jobbers, retail grocery stores, retail

fruit stores and stands, fruit vendors and hucksters, and generally to the retail trade. They also place much fruit in storage, gradually disposing of it as the jobbers and retailers find a market.

5. In the fruit and produce trades a distinction is drawn between car-lot wholesalers and jobbers. The latter also buy fruit and produce on their own account for resale to retailers and other jobbers. They act as intermediaries between car-lot wholesalers and retailers in that they usually buy in less-than-car lots from the former for rapid distribution in still smaller lots to any available customers. Jobbers also purchase some of their supplies from commission merchants, auctions, and public markets. Their chief economic function is in facilitating the rapid distribution in still smaller lots to any available customers. Jobbers also purchase some of their supplies from commission merchants, auctions, and public markets. Their chief economic function is in facilitating the rapid distribution of perishable fruits and produce.

6. Much fruit is sold by growers and local buyers through central commission houses. Indeed, the fruit trade was for many years closely dependent upon the commission houses, and although the tendency is to reduce the number of middlemen, the commission house continues to be an important link in the fruit marketing machinery. The practice of many local shippers is to consign their fruit to the commission men, who sell it direct to retail stores, vendors, hotels and other retail establishments, and if necessary to car-lot wholesalers and jobbers, or through auction companies. They receive from 5% to 10% on the gross sales as a commission for their services, and after deducting freight, refrigeration, drayage, and any other shipping costs which may have been incurred, remit the balance to the local shipper. Some commission men, taking advantage of the distance which separates them from the local shippers, have at times stooped to dishonest practices, and although the dishonest concerns doubtless are the exception to the general rule, the resulting distrust has done much to encourage the rise of car-lot wholesalers, jobbers, auction houses, growers' cooperative exchanges, and other more direct means of marketing.

The distinctive economic functions performed by commission houses in the fruit and produce trades may be stated as follows: "Commission houses offer almost the only good outlet for undersized goods which cannot be sold direct to the wholesale trade. Acting as primary receivers of less-than-car-lot shipments, they serve as a medium through which to market all goods which cannot be sold direct to car-lot whole-



salers and, when honest and efficient, they offer to inexperienced shippers the valuable services of trained market experts in disposing of their produce."

7. Some fruit is sold by growers and other local shippers through central market fruit brokers, who differ from the commission men chiefly in that they usually sell car lots to the wholesale trade. They solicit orders from car-lot wholesalers and then secure the required amount of fruit from growers or local buyers, receiving a brokerage fee of from 3% to 5% on the gross sales, or of agreed amounts per barrel, box, or other package. Growers and local shippers also consign carloads to them for sale subject to their order. Some of them act as jobbers, speculating in the fruit which they handle; and they endeavor at times to distribute the surplus stock of the large markets among the smaller markets of the surrounding community.

Fruit and produce brokers perform an economic function in that they act as representatives and salesmen for growers and local shippers of car lots who have no direct representative at the wholesale markets and are not able to make direct sales to car-lot wholesalers. They also "stimulate and expand the market to a certain extent by their expert canvassing of the trade, and any influence that stimulates active buying and selling must be regarded favorably. In general, their chief usefulness lies in the fact that their activities on the market tend to maintain a steady flow of business."

8. Auction companies have been formed at many large markets for the public sale of fruit and produce to the highest bidder. Like commission and brokerage concerns, the auction companies accept consignment of fruit from growers, local dealers, or others, but they differ in that while the former sell privately to a relatively small number of buyers, the auction concern sells to a large number at public sales, receiving from 2% to 15% on the gross sales for their services. They sell even more commonly for car-lot wholesalers, brokers, commission men, or other central market agencies.

The stockholders of the auction companies in some instances are the wholesalers and other members of the trade, and some of them have not provided the open and unrestricted markets which the auction system usually provides. "The auction company may also be a dealer in the products which it sells for its patrons. It may be engaged, either directly or indirectly, in financing its clients, in handling the products on joint account with its patrons, or in the purchase of products to be sold in competition with those of its clients." At



markets where the auctions are widely patronized, they afford a general index of wholesale prices and market conditions of the wholesale market. They try to keep fruit and produce "moving in a more or less steady stream from producer to consumer."

9. Though the bulk of the country's fruit sold in the large wholesale markets is handled through the various agencies mentioned above, some of it is sold in these markets directly by the growers. In well organized fruit growing regions, the growers sometimes form cooperative selling exchanges, such as the California (Citrus) Fruit Growers' Exchange, which have salesmen at the large markets who keep the growers advised as to the state of the market and sell their fruit to wholesale or retail buyers or through auction companies, thus dispensing with the commission men and brokers and sometimes with the jobber and auction companies. In the great eastern and middle western fruit markets, the efforts of these salesmen do not extend beyond the wholesale and retail buyers. In cities near the growing districts, however, some of the cooperative associations, when possible, sell direct to consumers.

Some individual growers also sell their fruit to retailers without the medium of commission men, jobber, or other middleman. Those located near a large market can in many instances readily sell some of their crop in this way, but it is at times done also by growers located at a distance. They may sell freely to all bidders or under exclusive contracts, they may sell it f.o.b. at point of shipment, for delivery at destination, or for delivery at retailer's premises; and they may arrange to have the retailer handle the fruit on his own account or on a commission basis. A grower as far away as Montana regularly stores some of his apples in eastern cold storage warehouses, from which they are delivered each day by a transfer or drayman to retailers, who receive from 20% to 30% on the retail sales for their service as retail salesmen.

On the whole, relatively little fruit is as yet sold directly by the growers to retailers at the large general fruit markets. The great bulk passes through the regular trade agencies mentioned above. Though serious abuses have at times arisen, most of these agencies are, even by some of the exponents of growers' cooperation, regarded as "men of integrity, business energy and resourcefulness, and as equal in these respects to any other class of men who deal in the products of the soil." It should be noted that the various agencies which have been discussed separately, frequently overlap—commission men, brokers,

and auction companies, for example, may act as jobbers; jobbers may handle some business on consignment, and local dealers may act as brokers.

Some fruit and produce is also sold by growers direct on public markets or indirectly on public markets through jobbers and retailers. These markets, however, depend largely upon producers in nearby growing districts for their supply. Carload lots shipped from more distant points are not commonly disposed of in public markets.

### RETAILING OF FRUIT

Fruit differs from the farm products previously discussed in that a larger portion of the crop is retailed to consumers.

1. A large proportion of the fruit crop is retailed by general grocery stores operating individually or in chains, by special fruit and produce stores or stands, by fruit vendors and hucksters and other retail dealers who obtain their supply from the wholesale markets or direct from fruit growers.

2. Consumers purchasing in bulk sometimes purchase from certain wholesale dealers or commission men who do a retail as well as a wholesale business.

3. Growers located near the retail markets frequently retail their fruit, vegetables, and other produce to the consumers.

4. Much fruit has in recent years been disposed of to consumers who purchase directly from growers or indirectly through middlemen.

Fruit retailers reach the consumers in numerous ways. They may dispose of their fruit at private stores or stands, directly from railroad cars, at consumers' premises, or at public or municipal markets. The latter are particularly convenient for growers who desire to retail in large cities. At a limited number of municipal markets, a wholesale as well as a retail trade in fruit and produce is conducted, but most of them are primarily retail markets.

### THE CHICAGO WHOLESALE MARKET<sup>2</sup>

Perhaps the easiest way of getting the system clearly in mind is to examine first the personnel of the produce trade and to pass in review the various individuals by whom the work is carried on. Chief

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<sup>2</sup> From Edwin Griswold Nourse, *The Chicago Produce Market*, Boston, Houghton Mifflin Company, 1918.

in such gathering of the personages of the market are the commission merchant, the jobber, and the car-lot wholesaler. Of these three, the first is already fairly familiar to most persons, and it is convenient, too, to begin with him because his method of dealing is the simplest of the three. He maintains a place of business to which shippers may send their goods to be sold and to which purchasers of such goods may come to do their buying. From the gross proceeds of such sales as he effects, he deducts his own commission and any charges which he has incurred for freight or express, cartage, or storage, and remits the balance to the consignor. He is left free to handle the consignment according to his best judgment and to take the best price which he can secure for it. In case the shipper elects to retain control over his goods, it becomes a brokerage rather than a commission transaction, and the broker submits to his principal such offers as he can obtain. Only after securing from him a confirmation of the price and terms of the sale can the broker complete the deal. He ordinarily takes the responsibility for the handling and delivery of the goods and sometimes, though not always, for the collection and remitting of the purchase price.

The jobber is to be distinguished from the commission merchant and broker in that he purchases his goods outright, looking to profits rather than to commissions for his remuneration. He may contract for his supplies far in advance from individual producers or cooperative selling associations; he may buy them as he needs them from local shippers in the producing territory, from brokers, commission men, or wholesale receivers in his own market, or through the public sales of the auction company. In a general way, the term "jobber" is limited to dealers in less than carload lots, but the more prominent jobber often purchases in very large quantities. In all cases he sells to retailers. He is the man who breaks up car lots, and this fact distinguishes him from the true wholesaler.

This car-lot operator goes by several different names. The term "car-lot wholesaler" is probably the clearest and least ambiguous. The term "car-lot receiver" is very generally used and is quite suitable for the dealer who buys in car lots and sells in lesser quantities to local jobbers. In everyday speech this is shortened so that he is simply a "receiver." In a similar manner, a class of dealers who buy supplies from wholesale receivers in the city market or from commission merchants, brokers, or jobbers, and make up car lots for shipment to other markets are frequently known as "shippers." This leads to con-



fusion, since the expression is used habitually for those who sell or consign from out-of-town points—the “country shippers.” Finally, we should notice that the individual or firm which deals in goods in car lots on its own account also, in many cases, handles cars on a commission or brokerage basis. This matter of the relation of commission and brokerage transactions to the out-and-out buying of the jobber and wholesaler is a question of some interest, but its discussion had best be deferred until the other members of the trade have been introduced.

Something has already been said about the broker in connection with one class of brokerage transactions. But besides selling brokers there are buying brokers, whose business in the Chicago market is to execute orders for the purchase of goods here for dealers elsewhere. This is particularly convenient in the case of goods for which this market is a trading center, but for which the smaller city offers only a limited or irregular demand. Likewise, there are traveling as well as resident brokers—men who go from one town or city to another in search of buyers or from one producing field to another in search of supplies for which they can locate a purchaser and thus earn a commission.

The work of the solicitor and the buyer is quite similar to that of the traveling buying broker except that the former is the salaried representative of some particular concern, not the agent now of one and now of another principal who makes occasional use of such service on a commission basis. The salaried buyer goes through a producing territory, making contracts with producers or shippers for the whole or some stated portion of their output, or buying from day to day wherever he can secure goods at satisfactory prices. He keeps in close touch with his employer, advising him by letter, telegraph, or telephone concerning the conditions in the field and the outlook as to quantity, quality, and prices demanded for the goods in question and the amount and character of competition from other buyers. In turn, he is advised of the demand situation and given suggestions or specific instructions as to how much to buy and what to pay. The “solicitor” of consignments may be a different person from the traveling buyer, but very often the distinction is merely one of time. The solicitor of yesterday becomes a buyer of today and perhaps drops back from the cash to the consignment basis again later in the season.

The “shipper’s representative” may be, to all intents and purposes, a resident selling broker, offering his services to any shipper who has goods to sell in the Chicago market. These services may, however, be more in some directions and less in others than those of the ordinary

broker. The shipper's representative may give special attention to seeing that goods are handled promptly by the railway or express company and that cars are properly iced and that perishables are protected from freezing temperatures during cold weather. He will ordinarily make a special inspection of goods upon arrival in order to ascertain whether they have suffered loss or damage in transit and to fix the blame therefor. He will attend to the filing of such damage claims as are called for and see that the goods are adequately handled and disposed of in such a manner as to secure the most favorable prices. He may have no concern whatever with the actual selling of the commodities, which will perhaps be attended to by a commission merchant or through an auction company.

Such a shipper's representative receives a fee or commission for his services, but there are also salaried representatives who perform similar duties for the larger shippers. Some growers' associations and even a few individual producers send their own men to Chicago to represent them personally during the season in which their product is being marketed. In a very few cases the volume of business is large enough and sufficiently continuous to justify the maintenance of permanent offices here. This is notably true of the California Fruit Growers' Exchange. They have a district and field force to look after their interests in this market and throughout the adjacent territory.

The "car peddler," strictly speaking, is a producer or country shipper who goes along to market with his car of produce and peddles it out from the car door in the freight yard. This class of business is much more prevalent in smaller cities than it is in Chicago. But here the same term is applied to the dealer who starts in business on a "shoe-string," has his office under his hat, and finds it cheaper to pay demurrage than store rent and team hire. The practice is frowned upon by regular dealers and has been largely eliminated of late through the action of the railroads, who refuse to allow their tracks and rolling stock to be tied up in this manner.

### THE CHICAGO PRODUCE MARKET MOVED<sup>3</sup>

Up to 1925 South Water Street was the principal wholesale receiving market in Chicago for perishable farm produce. This was an east and west street half a mile long, with the "Loop," the principal down-

<sup>3</sup> From M. T. Copeland, *Problems in Marketing* (A. W. Shaw Company, Chicago, 1927), pp. 217, 219, 222, 223.

town district, directly south of it, and the Chicago River on the north. On this street and the adjacent side streets were located nearly all the car-lot wholesalers in the Chicago produce market, a large majority of the commission merchants, and also a large number of jobbers. All produce handled in this district was trucked from distant railroad yards; there were no direct rail connections, and only an insignificant quantity of produce was received by water. This market, however, was situated advantageously with respect to the fruit auctions and the cold storage warehouses, which were located across the river from South Water Street. The street itself, during the busy hours of the day, was blocked with vehicles, and its sidewalks constantly were obstructed with piles of boxes, sacks, crates, and barrels. The buildings themselves were old and entirely inadequate for the volume of business transacted. The sidewalks also were congested with produce being unloaded from the trucks that had brought it from the freight yards, with produce being loaded on trucks to go back to the freight yards for reshipment, and with produce for which there was inadequate display and handling room inside the buildings.

Slightly less than one mile west of the South Water Street market was the West Randolph Street market. This market was made up largely of jobbers, although there were some commission merchants.

Conditions in the South Water Street market had been admittedly unsatisfactory for more than a decade. It was too close to the business district; the space available was entirely inadequate; and it was necessary to truck perishable produce through the congested business district from 18 of Chicago's railroad freight terminals which were located south of the Loop.

From time to time it had been proposed that the merchants on South Water Street move their businesses to a less congested district. It did not prove possible, however, to secure agreement on this move until the city of Chicago, under a program of civic improvement fostered by the Chicago Plan Commission, undertook the construction of a two-level, through boulevard along South Water Street, to be known as Wacker Drive. When this project became a certainty, 150 representatives of firms in the business of handling perishable farm produce formed the South Water Market Trust. A site was selected between South Morgan Street and South Racine Avenue on West 14th Place and West 15th Street. This site was 2 miles southwest of South Water Street and  $1\frac{1}{2}$  miles directly south of the West Randolph Street market.



The new market, which was known as the South Water Market, was opened in August, 1925. Most of the firms which located there were those handling fruits and vegetables; a few of them, however, handled such commodities as poultry, veal, lamb, fish, eggs, and butter. Firms establishing themselves in this market comprised car-lot wholesalers, jobbers, hotel and institutional supply firms, commission merchants,<sup>4</sup> brokers, and representatives of large producers' organizations. As usual, there were numerous firms carrying on combination types of businesses. Cold-storage facilities were provided adjacent to the new market, and banks, stock brokerage houses, restaurants, insurance agencies, and other "facilitating" types of business located on nearby streets. The streets immediately surrounding the new market were wide, and the streets leading to it were relatively free from traffic congestion. This new market could be reached from any part of Chicago without going through the Loop district; but it was not on a railroad siding and hence was not a terminal market in the strict sense of the word. Of the 27 railroad freight terminals in Chicago, however, 20 were situated within  $1\frac{1}{2}$  miles of the new market.

The fruit auction companies, which became closely affiliated with the South Water Market Trust at the time the new market opened, moved from their former location to a site on a railroad siding at 27th Street and Ashland Avenue, nearly  $1\frac{1}{2}$  miles southwest of the new South Water Market.

In 1926 a project was under way for the development at this same location of an unloading yard and a concentration yard. By means of the existing belt line railroad it was expected that cars of perishable farm produce could be switched from the various trunk lines to this unloading yard and there unloaded by the merchants in the new South Water Market, who would thus be relieved of the necessity of trucking goods from a large number of different freight terminals.

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<sup>4</sup> Although numerous firms still termed themselves commission merchants, it was stated that the proportionate volume of business actually handled on a commission basis had decreased materially during the 10 years preceding 1925.

## XIX

### POTATOES<sup>1</sup>

WHILE potatoes are widely planted in nearly all states for use on the farm or in neighboring markets, the commercial crop moves from relatively definite restricted areas.

The larger part of this crop must be transported to market by rail, and a large portion of the commercial movement enters into interstate traffic; thousands of carloads are transported long distances, and a very large portion of these potatoes are marketed in an unsatisfactory condition, because of careless handling and little or no grading. Such potatoes are unsatisfactory to shippers, wholesalers, retailers, and certainly to consumers. The railroads, too, are vitally affected, especially when rejected cars stand on track for days and weeks, the contents often bringing less than freight charges. This is most likely to occur when the roads are the busiest in the fall harvest season and spoiled potatoes are sometimes left in the cars or thrown out along the tracks, emphasizing the vital need of careful handling, better grading, and fixed, uniform standards of quality.

#### HANDLING SOUTHERN EARLY OR "NEW" POTATOES

The southern crop (called in the trade the "New Deal"), on account of its perishable nature, must be marketed quickly, while the northern crop can be held in storage for months. The shipments of the new crop from the Southwest begin in Louisiana and Texas about May 1 and continue ordinarily until about June 15, when Arkansas and Oklahoma begin to ship. These districts usually ship until about July 5, when the season of the district around Kansas City, better known as the Kaw Valley section, opens up, lasting about six weeks.

One distinctive feature of the "new deal" in the Southwest is that a large number of cash buyers representing different wholesale fruit and produce firms and distributing agencies scattered over the United

<sup>1</sup> From C. T. More and C. R. Dorland, *Commercial Handling, Grading, and Marketing of Potatoes*, United States Department of Agriculture, Farmers' Bulletin No. 753, November, 1916.

States come to these sections to buy. The crops are usually sold through local representatives and through distributing agencies who have previously contracted with the growers to sell their crops, although there are many of the growers who sell their own.

The early crop moves chiefly from California, Texas, Florida, North and South Carolina, Virginia, Maryland, New Jersey, Kentucky, Kansas, Oklahoma, Arkansas, and Louisiana. Typical sections are those of Florida and the Eastern Shore of Virginia. Florida's method of harvesting is here described.

### *Florida*

The principal potato shipping section of Florida is located about Hastings. In 1915, this section shipped about 1,800 carloads between May 1 and June 1. In all southern sections, potatoes should invariably be picked and loaded into cars as soon after digging as possible, in order to avoid sunburn and the consequent decay. Where the sizing machine is used, potatoes are picked into slat crates holding about 50 pounds. They are then hauled to the machine, which is placed in some convenient part of the field, in the grower's barn, or under a shed, where they are run over the sizer, from which they fall into barrels.

### HANDLING NORTHERN LATE POTATOES

The 12 heaviest late potato producing states of the North and West are Maine, New York, Michigan, Wisconsin, Minnesota, Pennsylvania, Ohio, Illinois, Iowa, Nebraska, Colorado, and Idaho.

Digging is usually begun some time between the middle of August and the middle of September, and the bulk of the crop is dug and stored by about October 15 to escape the possibility of freezing weather.

### MARKET OUTLETS FOR NORTHERN GROWERS<sup>2</sup>

#### *In the Ground or f. o. b. Shipping Point*

Occasionally a grower will sell his crop in the ground for a lump sum or at stipulated price per bushel f.o.b. cars at shipping point; the former method, however, is unusual.

#### *For Cash by the Load as Hauled*

Growers may use this method and sell when they need cash or when convenient and other work allows time for sorting and hauling.

<sup>2</sup> From W. A. Sherman and others, *Marketing Main Crop Potatoes*, United States Department of Agriculture, Farmers' Bulletin No. 1317, August, 1923.



*To Cash Traveling Buyers in Carloads*

A grower may make a contract with a track buyer to load one or more cars at a stipulated price. This method is general in some northern sections. The buyer or his representative is usually there to inspect the stock when the car is loaded. Potatoes which are defective in quality or do not come up to grade in some other particular are thrown out or an allowance is demanded.

*To Local Warehousemen*

In most of the northern producing sections, local men who saw an opportunity of extending their operations have entered the potato storing and shipping business. Usually, these local men have warehouses and some of them are equipped throughout with modern machinery for sorting and handling the potatoes. If the stock is placed in storage for the growers' account, the warehouseman may arrange with the grower to charge him a price per bushel for sorting and grading, as well as storing, and if he later sells the potatoes, a commission on the selling is added.

*To Distributors Who May Have Local Warehouses*

The distributor who has his warehouse at the loading station is an important factor in marketing northern potatoes. His storage facilities are an advantage, for they enable him to serve the small grower who has not sufficient acreage to warrant him in providing cellar storage of his own. In this way the business of the small grower may be secured at points where there are no local warehousemen. There are a number of reliable distributors operating at certain points in the late-potato districts each year, owning or leasing warehouses, on whom the growers rely to some extent to buy or market their crops.

*Shipping on Consignment*

Although most growers and shippers prefer to sell outright, it is generally conceded that under present conditions the commission merchant is a necessary factor in the fruit and produce business. The success of this method of marketing depends very largely on conditions.

*Selling by Wire*

In some cases, particularly when he has had marketing experience, the grower may sell his crop to advantage by wire, in the same manner as does the distributor or buyer. Very few growers have the experience or the trade connections to market in this manner, so the method

is not commonly used. The shipper or grower needs an intimate acquaintance or at least a satisfactory basis for dealing with the broker, buyers, and receivers on the markets. Some knowledge of railroad transportation is essential as well. The ability to settle disputes satisfactorily and effect compromises is necessary.

### TRANSPORTATION

Common box cars are used for the main crop marketed in the fall until the carriers require the use of refrigerator or lined box cars. The date of beginning, varying with the sections, is between the first week of October and the first week of November. The double walls of the refrigerator cars make it safe to ship potatoes in them without a heater while the temperature stays above zero, but at lower temperatures either an oil "monkey stove" is placed in each ice bunker or a coal stove is installed in the center of the car.

The minimum load for unheated cars allowed by carriers varies considerably with different sections. It is usually 30,000 pounds in the South and West and generally 36,000 pounds in the central and eastern sections, but in a few districts is as high as 45,000 pounds, which is the minimum for some types of cars in Maine and Michigan. Most shippers load from 1,000 to 3,000 pounds above the fixed minimum, but the freight charge is based on the fixed minimum in cases where the load falls below it. Heaviest loading is practiced at times of the year when it is neither necessary to ice the cars nor to heat them. Provision for the circulation of cold or warm air requires special systems of loading.

### THE CENTRAL WHOLESALE MARKET

Since a large part of the northern crop is handled by large distributors, it is well that growers should know how these firms handle their shipments. Some of these outlets are also open to associations and to experienced growers. The distributor may use several methods in making his sales, as follows:

*Through His Store in the City to the Retail Trade.* To sell through his store to the retail trade makes it possible for the distributor to hold a long line of customers who buy regularly or periodically, but who do not buy in sufficient quantities to patronize the produce yards. A

better average profit is secured in this way because to the distributor's car-lot profit is added that of the jobber's. Many times, inferior products may be disposed of through the store to a certain trade to very good advantage, and it is often better to dispose of cars which must be sorted in this manner.

*In Straight Car Lots or by "Breaking" Cars.* In some cities an extensive business is carried on in selling "straight," or full, cars and in "breaking," or selling by the load out of cars in the railroad produce yards. On the larger markets it is not unusual to see from 50 to 100 or more cars of potatoes on the tracks at one time to be sold. The railroad produce yards of one eastern city are located in the center of the wholesale produce district, and a large percentage of the cars received are sold there in straight carloads to wholesalers, jobbers, chain stores, and peddlers. This is a quick and inexpensive method of selling and very desirable on account of the perishability of some commodities.

Breaking cars is a common method of selling, and a large volume of this kind of trade is carried on in connection with the car-lot business. The small jobber may buy in this manner in sufficient quantities to supply his requirements. Usually, the distributor's gross profit on such sales is greater than in selling straight cars because his selling expense is heavier.

*Consigning to Another Market.* There usually comes a time in some districts when a distributor will be unable to sell all the crop for cash f.o.b. shipping point, or delivered, and will have to consign. On account of his trade connections and the volume of business he controls, he probably feels more confident that he will receive fair treatment from the commission merchant than does the grower. The commission merchant is sometimes in a measure dependent upon the distributor for supplies. Sometimes the services of a broker are utilized by the wholesaler or distributor when consigning to outside markets.

*Selling for Cash to a Track Buyer.* Track selling is carried on quite extensively in all potato producing districts. The buyers may be traveling brokers or representatives of wholesale firms. Track selling is preferred by some distributors for the reason that the risk in transit due to decay, weather conditions, shrinkage, market decline, and other causes devolves on the buyer.

*Selling by Wire to the Trade in Other Cities.* Selling by wire is a very successful method when the wholesaler, shipper, or distributor



has the proper market connections, namely, his own representative, a broker in the market, or a personal acquaintance with his customers. The sale may be consummated by telegraph on an f.o.b. shipping point basis, in transit, or delivered. The distributor has accurate knowledge of how many cars he has to sell, the grade and quality of the stock, and should know approximately the quantities the different markets are receiving and the quantity moving from producing points. With the knowledge and with information as to the general market conditions, he can quote his products intelligently.

When the sale is consummated, a record is made of the order, the broker's name, and all particulars. The brokerage on potatoes ranges from \$5 to \$10 per car, usually each principal paying for his own wires.

### WEIGHING

There has been considerable dissatisfaction among some buyers and receivers over the loose manner now in vogue of weighing potatoes. It is believed that too little effort is made by shippers to have the weights absolutely accurate and to secure scale tickets. In many sections of the north central states the potatoes are weighed as sorted; in fact, most sorting machines have a bag attachment at one end, the bag being placed on a scale and weighed as the potatoes come out of the machine. To dispel any doubt as to the accuracy of the scales, either a public weighmaster should have supervision of the weighing or the scales should be tested frequently and the buyer given an affidavit as to the correctness of the weights.

The safest method is to have every load hauled contain the same number of sacks and have each load weighed and properly recorded over a public or other wagon scale. Potatoes cannot be weighed one sack at a time as accurately as in loads over large scales.

### THE PRICES OF POTATOES<sup>3</sup>

The price at which the farmer sells his potatoes varies greatly from year to year. The demand for potatoes is stable. An increase or a decrease in the price will have a relatively small effect on the demand for potatoes, but an increase or decrease in the supply of potatoes available in a given year has a relatively great effect upon the price. The

<sup>3</sup> From H. C. Taylor, *The Marketing of Wisconsin Potatoes*, University of Wisconsin Agricultural Experiment Station, Bulletin No. 256, July, 1915.

quantity of potatoes produced annually is irregular. This irregularity is due primarily to the caprice of nature rather than to the fickleness of man. The acreage planted to potatoes in the United States from year to year varies but little, while the average yield per acre varies greatly.

#### STANDARDIZATION<sup>4</sup>

There is a special need of standardization of potatoes because they occupy such an important place on the tables of most families. Wholesalers and retailers usually aim to handle potatoes on as narrow a margin of profit and expense as possible because they are such a bulky, comparatively low-priced and widely used commodity, but in order to be handled on the narrowest margins the produce must be standardized so that expense and risk in handling, waste, and loss are reduced to a minimum. The demand at this time is for the establishment of uniform grades for potatoes which shall be accepted as the basis for all trading in this crop throughout the country. Such nationally accepted grades would give buyer and seller a foundation on which to deal with a better understanding and mutual confidence.

#### INSPECTION<sup>5</sup>

There is the possibility that the buyer will reject the shipment on arrival as not being up to grade or being out of condition. If there is trouble of this sort, the shipper may arrange to have the car lot officially inspected by the Federal food products inspector. These inspectors are located in the principal market centers and will travel reasonable distances to inspect on request, on payment of a fee of \$4 per car and expenses. The carload may be inspected when placed on the team track at the city railroad yard. This is privately done, as a matter of course, by the dealer's customers. An official inspection may be made by the Federal inspection service upon request by the shipper, dealer, or railroad company, and is usually made in case of doubt raised regarding quantity, grade, or condition. All bills of lading should read "Permit inspection."

The cost of official inspection is a small item, but it helps to insure against unfair rejection of the car. The inspector's report, a copy of

<sup>4</sup> From United States Department of Agriculture, Farmers' Bulletin No. 753, November 1, 1916.

<sup>5</sup> From G. B. Fiske and P. Froehlich, *Marketing the Early Potato Crop*, United States Department of Agriculture, Farmers' Bulletin No. 1316, May, 1923.

which goes to the shipper, makes a fair basis for allowance in case the car lot is really defective or if damages are to be claimed from the railroad for undue delay or lack of care in handling the shipment. If the damage was caused during transit, the buyer may accept the car under protest and enter a claim for damages in behalf of the shipper.

Official inspection service at country shipping points has been established in some states. This service has been rendered to some extent by the United States Department of Agriculture and will assure more complete protection to shippers and receivers.

### UNITED STATES GRADES<sup>6</sup>

*U. S. No. 1.* U. S. No. 1 shall consist of potatoes of similar varietal characteristics which are not badly misshapen, which are free from freezing injury and soft rot, and from damage caused by dirt or other foreign matter, sunburn, second growth, growth cracks, hollow-heart, cuts, scab, blight, dry rot, disease, insects, or by mechanical or other means.

The diameter of potatoes of round varieties shall not be less than  $1\frac{7}{8}$  inches and of potatoes of long varieties  $1\frac{3}{4}$  inches.

*U. S. No. 1 Small.* U. S. No. 1 Small shall consist of potatoes ranging in size from  $1\frac{1}{2}$  inches to  $1\frac{7}{8}$  inches in diameter but meeting all the other requirements of the U. S. No. 1.

*U. S. No. 2.* U. S. No. 2 shall consist of potatoes of similar varietal characteristics which are free from freezing injury and soft rot and from serious damage caused by sunburn, cuts, scab, blight, dry rot, disease, insects, or by mechanical or other means.

The diameter of potatoes of this grade shall be not less than  $1\frac{1}{2}$  inches.

### FARM STORAGE<sup>7</sup>

While some potatoes are stored in the warehouses of the dealers in the local towns and a few are shipped for storage in the city where they are consumed, the storage function is performed, in a large measure, by the farmers. Warehouses seem to be used more as reservoirs to equalize the irregular receipts of potatoes from the farmers in order to have

<sup>6</sup> From *United States Grades for Potatoes Recommended by the U. S. Department of Agriculture, Effective July 1, 1922*, United States Department of Agriculture, Department Circular No. 238, 1922.

<sup>7</sup> From H. C. Taylor, *op. cit.*



a continuous supply for shipment. It is believed that much more than two-thirds of the potatoes are stored for a longer period on the farm.

There are several reasons why the farmers should do the storing. The potatoes are dug in a short time in the fall, and if it were necessary to get cars enough to ship twenty million bushels in a month, the cost to the transportation companies would be greatly increased. The local dealers would be swamped for a short time and then have no potatoes to handle for eleven months. The farmer who is very far from the station finds it more practical to devote all his time to digging potatoes during the potato harvest and then haul them to town when other work is not so pressing.

## XX

### APPLES

#### I. BARRELED APPLES<sup>1</sup>

##### *At Farm or Shipping Point*

MOST larger sales by commercial growers fall mainly within four general classes: (1) For cash or on account to local dealers or to agents of distant firms; (2) lump sale on contract; (3) sale through commission dealers; and (4) sale through cooperative associations.

In the great apple producing sections, like western New York, the Shenandoah Valley, and southern Michigan, apple buying is highly specialized. Many of the local dealers have offices, warehouses, and shipping facilities and are on hand to buy throughout the season. Accordingly, a great proportion of the total commercial barrel crop is sold direct to local buyers at principal shipping points; but traveling buyers also are very active, especially when the season's crop is of desirable quality and is limited in quantity. Under favorable conditions these agents may place a large proportion of the crop under contract early in the season. They buy from growers and from local dealers.

Buyers ride out into the country and look over the stock owned by growers or being handled by shippers, and make purchases for immediate needs and sometimes buy large blocks for shipment later in the season. Exporters drop in from time to time and buy blocks of stock. A few buyers stay through the entire season, some of them arranging joint account transactions with several shippers. Sometimes, year after year, it is the same buyer who bids highest for the grower's crop, as he has found that his customers ask for these particularly fine, well packed apples. To maintain this reputation the grower must have taken pains with the crop. The dealer inspects it on the trees or in the packing house or storage, and the deal proceeds with mutual satisfaction. The well informed grower knows the market situation, for he reads the market reports and talks with dealers.

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<sup>1</sup> From George B. Fiske, *Marketing Barreled Apples*, United States Department of Agriculture Bulletin No. 1416, June, 1926.

In orchard sales, as a rule, there is a contract specifying as closely as possible (1) the number of barrels, (2) the pack, (3) conditions of delivery, and (4) the price per barrel. Comparatively few crops are sold on the trees for a lump sum, or per barrel "tree run"; that is, just as they grow. In such sales the buyer picks and packs the fruit.

Most sales are made by the barrel, bushel, or hundred pounds on the basis of fruit delivered at station or storage house either as delivery or sales agreed upon early in the season or as lots to be sold at the current market price.

### *Commission Dealers*

In years of heavy production many dealers refuse to buy, but instead urge shipments on commission, thus placing the risk on the shipper. It has been estimated that more than one-half of the sales of western New York apples in New York City are by commission dealers, but in most markets the indicated percentage is much lower. These consignments are from country dealers and from growers. Many orchards are too small or too distant to attract buyers, and a vast number of small lots are sent to commission dealers by express or freight. A great deal of commission business is secured through advance payments of one kind or another, dealers making loans or extending credit to assist in harvesting, packing, and storing the crop, and deducting these advances from the proceeds of the sales.

### *Sales by Dealers*

In the fall, when trading is active and shipments are heavy, local firms are receiving telegrams asking for quotations for making offers on barrel, basket, or bulk stock, for immediate shipment or future delivery. Local dealers may keep in touch with many leading markets by telephone. If conditions look favorable and they have orders for a number of cars for prompt shipment, the dealers direct their buyers at country loading points to buy from growers or to have the growers deliver the stock already bought to cars or warehouses.

Once the stock is packed, sales may be made for prompt shipment or for future delivery. Apples in cold storage often change ownership from grower to shipper or to outside buyer, or from shipper to outside buyer. In this case the buyer may assume the storage charges. If he buys the apples as they are, he assumes also the expense of repacking, if necessary, and of loading. Shippers who sell on wire orders usually assume all these charges and quote a price that covers the



additional cost. A considerable part of the crop that is sold on wire orders goes to small towns.

### *Sales Through Brokers*

When car-lot sales are arranged by local shippers or large growers through city brokers, the seller writes or telegraphs to a broker an offer of a specified variety and grade at a definite price per barrel, for a carload. The broker gets in touch with dealers likely to buy the stock and sends the shipper the best bid obtainable. When city dealer and country shipper have agreed on terms, the broker notifies the shipper to forward the car f.o.b. usual terms, and to send draft on the broker's bank with bill of lading, and with permission to inspect.

The buyer, on accepting the car, orders his bank to pay the draft and the proceeds are forwarded to the shipper.

### *Western New York*

About 75% of the western New York shipped apple crop is usually sold by growers to local dealers or agents who pack or repack much of the fruit and sell it to outside dealers, by whom it is distributed to the trade. The other 25% is mostly put up or stored by growers, or sold direct to traveling buyers, or shipped on commission, or handled by cooperative associations.

### *Southeastern Region*

In the Potomac-Shenandoah-Cumberland Valley region, the larger part of the crop is sold by growers for cash on immediate or future delivery, at loading station or cold storage plant. Usually most of the crop is under contract to buyers before packing begins, especially when there is active demand for the early export trade. A half-dozen cooperative associations handle varying quantities up to 500 carloads each and together rank next to the cash buyers in importance.

### *Great Lakes Region*

In southwestern Michigan, the apple trade centers around various lake ports, including Benton Harbor and South Haven. Much of the fruit is brought to town in wagonloads by the growers and sold for cash per bushel basket or barrel to local dealers and to agents. Cooperative selling is an important feature. Most of the associations are federated and sell through large country-wide selling agencies. There is also considerable shipping on consignment by boat to commission firms in Chicago, Milwaukee, and other markets. A number of city dealers

have local agents who solicit shipments to be sold on commission or who buy outright when occasion requires. Fruit bought the night before reaches the Chicago market next morning, and conditions in that city strongly influence the Michigan country markets.

### *Early Regions*

In the early apple sections of southern Illinois, eastern New York, New England, and the Southern States, commission sales are in the majority. The perishable nature of the product compels almost daily shipments, often in less than car lots. Growers sometimes unite to ship in car lots or they ship mixed carloads. Since many of the early orchards are near markets, an increasing proportion of the early crop is trucked to the nearest cities.

### *Cooperative Marketing*

Eastern apple organizations do not handle as large a percentage of the crop as do the boxed apple cooperatives in the Northwest, but nevertheless they do considerable business. Reports received by the United States Department of Agriculture from 42 cooperative associations and federations that handle barreled apples indicate that in 1922, the last season for which comprehensive returns are available, they shipped 4,798 cars of apples with a shipping point value of \$3,115,068. These cooperative shipments were about 7% of the total shipments from the barreled apple region in the 1922-23 season.

Nearly all the associations have been organized since 1912, and half of them since 1917. Nine of them are large federations, having together 248 local branches and membership exceeding 24,000. A few leading federations made more than half of the cooperative sales. Usually they have a contract with their members giving the association control of the crop for several years. They sell through a sales manager or sales agency and pool the returns so that all members receive the same prices for the same grades and varieties, according to average returns for the season. Sales by the associations are made, preferably for cash, at shipping point, but many carloads are sold subject to acceptance and sometimes at a price including freight and other charges. Many associations ship more or less stock for sale on commission. Brokers are employed by some associations to assist in finding buyers but the majority of sales are direct to car-lot dealers.

### *Barrels and Baskets*

When loading the car with packed fruit at the shipping station, the

barrels are stowed in the car on their sides, with heads toward the sides of the car in alternate rows. Lengthwise loading is undesirable because of the greater strain on the heads and liability to displacement. Packing on end is suitable only for small lots in single layers. A standard load as designated by some of the railroad companies is 160 barrels loaded three or four layers high. The ventilated refrigerator car is preferred for long-distance shipment, but many box cars are used and are fairly satisfactory for moderate distances in mild weather. As icing is needed only in warm weather, it is practiced for only a small proportion of barreled apple shipments.

Baskets are packed four layers high, lids up, and rows offset to bring each basket on the edges of two baskets underneath. A type of basket much in use may be packed together by interlocking the projecting rims of the covers. Shipments average about 500 bushel baskets to a carload. The bushel hamper averages about 600 and the five-eighths bushel hamper 680 to the carload.

### *Bulk Shipments*

Car-lot shipments in bulk are the rule for cider and canning stock. Good market stock in the East is not usually shipped this way. In the Ben Davis region, particularly Arkansas, Missouri, and Kansas, the excellent handling qualities and low market value of the prevailing varieties favor bulk shipment, which comprises half the car-lot movement in some districts. The apples when of good general market grade are sometimes protected from bruising by straw bedding, and the firm-fleshed, thick-skinned varieties often reach market in much better condition than might be anticipated by shippers accustomed to handle good apples almost as though they were eggs. Bulk shipments average about 15 tons to the carload.

### *Stocks in Cold Storage*

Cold storage prolongs the active market season for two or three months and greatly relieves the pressure of supply in the early part of the season. Combined boxed and barreled holdings on December 1, stated in barrels, have ranged from 4,500,000 to 5,500,000 barrels from 1914 to 1917 and from 5,000,000 to 6,750,000 during 1918 to 1922, but reached nearly 10,000,000, or well over one-fourth of the estimated commercial crop, in 1923. Cold storage stocks of barreled apples are always at their height in December. Boxed apples, because of distance from the main cold storage centers, are slower in reaching the season's climax.



## FOREIGN APPLE TRADE

Apple exports have averaged only about 5% to 10% of the commercial crop, yet the export situation has had much to do with the course of the general apple market. The sudden change in market conditions and the rise in price on the resumption of apple exports after the World War is an example still fresh in memory. The export movement is a useful safety valve in years of heavy production. Imports form hardly more than 5% of the foreign apple trade and because of their small volume have little effect on the general market.

*Markets*

Three-fourths of the average apple exports go to the United Kingdom, including over four-fifths of the barreled apples exported. The remainder are taken chiefly by Canada, by the Scandinavian countries and Germany, and by Mexico, Cuba, Argentina, and Brazil. Recent gains in exports to continental Europe are principally of the boxed fruit.

*Export Season*

The bulk of the apple export movement is from September to the end of April. Shipments are irregular; the peak of the season tends to occur in November and December but may happen any month from October to February.

*Export Practices*

New York is the principal export district for barreled apples. Shippers billing cars through for export make such notation on their bills of lading and have the railroad notify their New York agents when the cars arrive. It is the duty of the agent to see that the shipments are inspected, if the shipper desires it, and to see that they are delivered to the next ship sailing. Usually these agents are brokers representing the foreign firms which are to receive the shipments and they are paid by the foreign receivers from the commissions or profits.

The shipping point inspection certificate has its value in foreign countries as well as in domestic markets. Auction sales in British markets are made by sample, and buyers have found that the Federal or state inspected apples can be relied upon to be of uniform quality and condition and that the samples can be depended upon to be indicative of quality and condition of the entire shipment.

Liverpool and Manchester apple auctions do not accept responsibility for quality. They are expected to stand back of the classification of

the fruit as to condition. The buyer accordingly claims the right to reject barreled apples when packed too tight, too slack, or with the contents wet because of defective packing or overripeness, provided these conditions were not stated when the goods were sold.

The recent ocean rate on barreled apples from the Atlantic seaboard to the United Kingdom is 90 cents a barrel in ordinary stowage and \$1.40 a barrel in refrigerated space.

### *Grades and Sizes*

Apples in standard packages are commonly sold under descriptive terms indicating variety and comparative general market qualifications, as expressed in grade and size. Many of the states as well as the United States Department of Agriculture have outlined definite specifications. Recommended Federal grades and some of the state grades designate leading grades by numbers, as No. 1 or No. 2. The orchard-run grade or class is common in New York and New England.

The increasing number of large orchards and associations and the use of sizing machines has favored more accurate and uniform grading and sizing. In handling large quantities the tendency is to make at least two additional classes, marketing the largest and best-colored fruit as a Fancy pack, or A-2¾ inches; next a medium size as A-2½, and the apples of small size but otherwise desirable pack as A-2¼. The smooth, unblemished, highly colored small apples when separated bring good prices, especially for export.

## II. WESTERN BOXED APPLES<sup>2</sup>

### *Washington*

During the last few years, Washington has become the leading commercial apple state. It leads not so much on account of acreage as because of large yields per acre and fairly regular crops. The district in north central Washington, known as the Wenatchee-Okanogan, comprises the counties of Chelan, Okanogan, Douglas, and Grant. The present acreage is largely in the Wenatchee, Okanogan, Entiat, Methow, and Columbia river valleys, and along the banks of the rivers and the shore of Lake Chelan. The common size of orchards is from 5 to 20 acres. A few of the large commercial plantings contain up to 600 acres.

The apple district centering around Yakima extends for about 200 miles.

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<sup>2</sup> From George B. Fiske and Raymond R. Pailthorp, *Marketing Western Boxed Apples*, United States Department of Agriculture Bulletin No. 1415, June, 1926.

hundred miles along the valley of that name, from Kennewick to Ellensburg.

The Spokane district ranks third among the apple growing centers of Washington.

### *Oregon*

The Hood River district in northern Oregon, 80 miles west of Portland, is responsible for at least half the commercial crop of the state. Cultural methods are much like those practiced in Washington, but there is less complete dependence on irrigation because of the fairly abundant rainfall.

Centering around Medford is the Rogue River district, which also ships some tonnage from Grant's Pass, Gold Hill, and other small stations.

## SELLING METHODS

Growers of boxed apples market their fruit through various agencies. Cooperative associations sell their own fruit or contract its sale to private sales organizations. Local dealers are also an important factor in the marketing of the fruit. In some seasons traveling dealers and commission merchants are active in the deal.

### *Cooperative Marketing*

Cooperative marketing associations are important, especially in Washington and Oregon. A single group of growers may form a local association and hire a salaried manager to handle the general business and sell the fruit. Local groups may join federated associations, which either hire a salaried manager to sell the fruit or contract the selling to a private sales organization. Locals have been created to perform various activities connected with the harvesting of the annual crop, to prepare the fruit for market, to operate packing houses and storage plants, to purchase supplies, to conduct advertising campaigns, and to sell the products of the farms and orchards.

One reason for collective activity is that many of the things which need to be done in getting fruit ready for market can be done more efficiently and more economically when the activities are conducted on a large scale. Furthermore, sales can be more quickly made when standard products in uniform packages are offered in carload quantities.

Organizations handling boxed apples are of two types of structure, the association and the federation. The association is an organization in which the growers are members and vote directly or by proxy in the



affairs of the association. The federation, on the other hand, is a central association made up of several local incorporated organizations. Membership in such federation is usually limited to local associations which, in turn, are composed of grower members. Grower control in federations is accomplished by representation of each local association in a central meeting for election of directors or by proportional representation in the central board of directors.

Federations are likewise of two distinct kinds, the centralized and the decentralized. The difference, however, lies not so much in the structure of the organization as in the division of power and marketing functions between the central organization and the local units. In the strongly centralized type of federation, practically all the responsibility may be placed upon the overhead organization.

In the strongly decentralized type, most of the marketing functions, such as assembling, grading, packing, warehousing, and often the financing, are local problems. Here the federation functions mainly in the selling and advertising. In the cases where such decentralized associations have arranged with outside agencies for the advertising and selling, but little work remains for the overhead organization except central supervision of the business.

### *Dealers and Brokers*

Local dealers purchase fruit from growers, buying for spot cash or contracting to pay at some future date. Some of these dealers accept fruit on consignment, especially in years when the apple market is uncertain and eastern buyers have not placed orders or made advances to the local dealers so that they, in turn, are in position to buy or contract with the grower. When the apple crop is short, eastern dealers make cash advances readily to the local dealer, or he may be able to secure local capital. In either case, he is then properly financed and in a position to offer cash to the growers. These local dealers are important factors in the boxed apple sections. Many of them own warehouses and have developed a merchandising department to advance supplies and equipment to growers whose fruit they handle.

Many eastern commission houses and wholesale fruit jobbers are represented by traveling dealers, who are sent to the fruit districts to purchase apples for cash or to secure consignments. Their methods of operation are similar to those of the local dealer, except that they do not merchandise the grower's supplies or own local packing and storage houses.

The bulk of the tonnage is sold through brokers located in car-lot markets, although car-lot buyers often deal direct with the seller. Local sales agencies, affiliated with national sales agencies, have exclusive brokers in the large car-lot markets. These brokers handle many commodities other than apples. Some local dealers and sales managers of large cooperative associations have direct brokerage connections in various car-lot markets. If the tonnage is large, the broker may handle only the offerings of one local dealer or one cooperative association.

#### *Auctions on F.O.B. Basis*

The growth in facilities for official inspection at shipping points has tended to increase the sale of apples on the f.o.b. basis. Often the sales of cars f.o.b. are "rollers" en route. Some sales are effected by a comparatively new institution, the f.o.b. auction sale. These auctions are held in the city market centers, the inspected car-lot being sold on description to the highest bidder among the competing buyers. Bids are made personally or sent to the auction by wire. Prices from distant cities are about the same as the city market prices less transportation costs. Being positive, unconditioned, cash sales, they are usually a little lower than the basis of regular f.o.b. sales at shipping points, although it is asserted that the difference in price levels in various cities tends to give the f.o.b. auction seller the benefit of the markets where highest prices prevail at the time of sale.

### TRANSPORTATION

Four arrangements are provided for the protection of apple shipments, and definite tariffs are provided for each kind of service. "Standard ventilation" is used extensively in the late fall, when shipments will encounter cool weather in transit. From October 15 to April 15, shipments cannot be billed "standard ventilation," as the carriers will not assume freezing risks.

Between October 15 and April 15 a shipper may ship under "shippers' protective service." Such service is used if the shipper believes that the apples will carry without refrigeration, and he usually furnishes a caretaker who either ventilates or heats the car while in transit. The railroad does not assume freezing risks on such shipments but allows free transportation for the caretaker to the destination and return. The shipper not only furnishes a caretaker but furnishes any equipment, such as stoves and fuel used in heating the car.

Under "carriers' protective service against cold" a charge is made in addition to the freight rate and the railroad assumes the freezing risk in transit. This service is available between October 15 and April 15 and it is used by the shippers for the bulk of the winter shipments. Only those railroads that operate west of Chicago offer heater service for the protection of perishables. These roads protect the load by placing an oil or charcoal heater in each bunker.

"Standard refrigeration" provides for the refrigeration of the shipments, and an additional charge over the freight rate is paid by the shipper for this service. Under this service the railroad agrees to keep the car iced in transit and is liable for the deterioration of the apples unless it is shown that they were in poor condition at time of shipment. This service is used extensively for summer, early fall, and spring shipments. If shipments are billed "standard refrigeration" between October 15 and April 15, the shipper assumes freezing risks.

### *The Carload*

A 756-box loading is used most extensively for boxed apple shipments. Under heater and refrigerator service a space is left between the doors to permit bracing the load; under ventilation, the car is often loaded solid without the brace. When loading for refrigeration, care is taken to provide uniform air spaces between the rows of boxes.

### *Water Transportation*

Since 1914-1915, apples have been carried, under refrigeration, by boat direct from Pacific Coast ports to the Atlantic seaboard, although the bulk of tonnage has moved by rail. In 1920, one steamship company began refrigerator service from the Pacific Coast to European ports, and in 1921 five steamship lines offered such service. Exports through Seattle and Portland have increased each year, and these ports are now used extensively for such shipments.

There are many things to consider when viewing the practicability of intercoastal shipment. Water rates between Pacific at Atlantic seaboard, including the short rail haul from producing sections to ports of embarkation, have been less than all-rail rates. Winter shipments by water are not subject to freezing hazards encountered by rail shipments. To offset these advantages, several important facts must be taken into consideration, such as trade customs and methods of sales.

Many of the apples are sold on an f.o.b. basis. Most of the remaining tonnage is rolled toward the East and sold in transit. If such unsold fruit were shipped by water, there would be no opportunity for distribu-



tion to inland markets west of the Missouri River, and it is doubtful if local rates applying to points any great distance from the Atlantic and Gulf seaboard could be absorbed. The eastern buyer has preferred rail shipments, as he is slow to consent to new and unproven methods of transportation. It is maintained, however, that intercoastal service is practical and economical for shipment from one seaboard to the other for such shipments as do not have to be back-hauled.

### STORAGE AT SHIPPING POINTS

As the production of boxed apples has increased, growers and shippers have realized the economic necessity of providing adequate storage facilities at shipping points. A wide difference of opinion exists, however, regarding the quantity of apples which should be stored at shipping point in comparison with that stored at eastern gateways, such as Minneapolis, Omaha, Denver, Kansas City, and Chicago.

Some growers and shippers urge in favor of eastern storage its convenience in marketing and the avoidance of danger from freezing. Other growers and shippers favor storage at shipping point adequate for the bulk of the crop so that shipments need be made only as market demands are apparent. Thus the storage and marketing is more directly under control, and the shipping and marketing season are extended as conditions may require.

#### *Cold Storage*

The ideal range of temperature for storage of most varieties of apples is about 30° to 32° F., and without the provision of mechanical refrigeration it is impossible to maintain such temperatures throughout the storage season. Correct temperatures for long periods cannot be maintained in common storage even of the best type. There should be sufficient moisture to prevent shriveling, yet not enough to favor the growth of fungous organisms.

### DISTRIBUTION OF BOXED APPLES

The boxed apple crop has a remarkably wide distribution. Reports of primary destinations of about 30,000 cars in 1919-1920 included shipments to 2,567 cities and towns.<sup>3</sup> A complete account of shipments

<sup>3</sup> *The Distribution of Northwestern Boxed Apples*, United States Department of Agriculture Bulletin No. 935.

diverted from first destinations would show many additional receiving points. The feature of recent seasons is the aggressive development of the small markets in the Central and Southern States.

### SALES IN CITY MARKETS

The great majority of boxed apples is handled, like other car-lot produce, through brokers, by car-lot receivers, and in turn by jobbers and by retailers. Commission dealers may be regarded as car-lot receivers, and there are many other variations and combinations. Auctions combine some of the functions of receivers and commission dealers. The broker is agent for the transaction between shipper or shipping association and dealer, or between dealer and dealer.

The car-lot dealer in boxed apples buys from the shipper through a broker or occasionally buys through his own agents in producing sections. He may resell through the regular fruit auction sales if located in large market centers, but generally he sells in less than car lots to jobbers. Sometimes his sales are made on track as the car is received, but in most cities sales are made from his store, often after a period of cold storage. Sometimes these large distributors act as sales agents of cooperative associations, sales being made subject to confirmation by the association manager. A few of the large marketing organizations have their own brokers or employ traveling salesmen.

The jobber buys usually in less than car lots, mainly from car-lot distributors or at the auction sales, and he resells in smaller lots of one box or more to retailers, hotels, and peddlers.

The commission dealer is less prominent in the boxed apple trade than in handling some other lines of produce, but is responsible for a small percentage of business, including a considerable number of shipments from isolated or unorganized producing districts.

#### *A Typical Carload*

The usual story of a car of boxed apples is that a broker, having received the description of the apples for sale by the country shipper or marketing organization, has called up the wholesalers on his list and obtained the best offer possible. This offer was wired to shipping point and, as the terms were accepted at first, or after the terms had been changed, the car was sold f.o.b. subject to inspection on arrival. The buyer pays the freight. Usually the car is billed to the shipper himself, with instructions to the carrier to advise his broker or buyer

at destination when the car arrives. When the broker or buyer pays for the car, the shipper notifies the railroad to release the car to the buyer. On arrival of the car, the buyer or broker receives notice from the railroad, accepts the carload by paying the amount of the invoice, and the buyer hauls the apples to his store in the wholesale district, where the salesman disposes of the apples in large or small lots.

### *In Smaller Markets*

In cities below half a million population there is usually no very distinct class of jobbers, but the car-lot receiver is also a jobber and perhaps a commission dealer selling lots of any size from a box to a carload. Sales in small lots constitute the great majority of the receivers' transactions in such markets and are the usual basis of their wholesale price quotations.

Boxed apples are not handled by just the same class of retailers that sell most of the barreled fruit. The boxed apple is the favorite stock of the city fruit store, the fancy grocery, the corner fruit stand, the push cart, and other sales places which depend on display to attract buyers and which in the large cities supply the active demand for lunch and dessert fruit. Individual grocers, chain stores, and provision dealers also handle much boxed fruit, disposing of vast quantities when prices are on a competitive basis with barreled stock and local supply.

### *Boxed Apples at Auction*

At the regular auction markets of fruits and vegetables, boxed apples are sold in 14 cities. These auction centers are New York, Philadelphia, Baltimore, Pittsburgh, Boston, Cincinnati, Cleveland, Detroit, Minneapolis, St. Paul, Chicago, St. Louis, Newark, and New Orleans.

Local estimates of the proportion of boxed apple arrivals sold by auction in the large cities vary from 25% to 30% for Pittsburgh, Baltimore, and Chicago to over 90% for St. Louis, Cleveland, and New Orleans. Philadelphia, Boston, Newark, and Detroit range from 60% to 75%.

A receiver when selling indirectly through an auction charges 5%, out of which he pays  $1\frac{1}{2}\%$  to  $2\frac{1}{2}\%$ , occasionally 3% or more, to the auction company. Some associations maintain salaried agents to act as brokers, selling either to dealers or through the auction company. The auction is held in the freight house, on the receiving pier, or in a nearby building, the stocks having been previously classified, labeled, and catalogued. Sales are based on packages taken at random from



each lot in line, although the buyers rely much on their knowledge of the prominent brands.

The broker or the agent for the shipper represents the owner at the sale, preventing delays, adjusting disputes, giving information to buyers, observing the proceedings, and, in general, protecting the owner's interest. A car lot is sold in 2 to 10 minutes. The shipper receives a catalogue of sales made. The fruit is sold in lots of 10 packages upward in the smaller cities, and from 40 packages upward in the greater markets.

Jobbers are heavy buyers at auctions and in some cities they take two-thirds of the sales. Jobbers expect to sell at a profit of 5 to 25 cents per package over auction prices. Sometimes the difference between auction and jobbing prices is very considerable, but it is asserted that the tendency of auction selling is to cut down the margin obtained by receivers and jobbers.

Among the advantages claimed for the auction system of disposal are (1) competitive bidding from a large number of buyers together, (2) prompt disposal of all classes and grades of stock, (3) publicity of prices paid, (4) less deterioration of stock, and (5) more or less saving in cost of selling.

### FOREIGN TRADE

Box exports and barrel exports in recent seasons were about equal in volume stated as bushels. In British and in some West Indian markets, barrels continued to lead, but most other regions have been taking more apples in boxes than in barrels. Direct shipments from Portland and Seattle to ports of continental Europe in refrigerator ships by way of the Panama Canal have proved very satisfactory. The season 1922-1923 was the first in which there were very large surplus crops of boxed as well as of barreled apples.

Argentina is the principal South American market for boxed apples. Receipts of American boxed apples are reported by value and appear equivalent to about 75 carloads yearly average, a small item compared with the European trade.

#### *Varieties and Packs*

The favorite boxed apple varieties for export trade are the Yellow Newtown, Winesap, Jonathan, Spitzenburg, and White Pearmain. The yellow and green varieties are more popular in British markets than in most American consuming centers.

*Shipment*

Although about one-half of the total of exported apples is shipped in common cargo, boxed apples are more often shipped under refrigeration because of the long journey from producing section to final market. Some steamships are equipped with mechanical refrigeration plants and ventilation systems. The experienced care of the shipmaster and of the refrigeration engineer are needed to prevent damage in loading or unloading or from unfavorable conditions of temperature, moisture, and ventilation. Boxes are stowed on end and held in place by car strapping across each tier of boxes. Not all the poor stock received is the result of the ocean voyage. One source of delay and loss is the tramp car, which has been diverted from one point to another in search of a market and finally turned over to the exporter. Even at the point of export there are sometimes poor connection with the steamer and rough handling.

*Port Auctions*

The auction method has had the same prominent position in the British markets as in the disposal of boxed apples in many large cities of the United States. Reports from a dozen large English trade markets indicate that about nine-tenths of the import apple sales are by auction.

The auction sales are made by samples shown in the sales room. A couple of boxes of each lot as sold are placed on display with lids removed, and from these the wraps are pulled from perhaps half of the top layer. Prospective buyers have permission to inspect the consignments as unloaded at the docks. The buyers themselves in some markets are closely organized and insist on regulations and practices regarding the taking of samples or the rejection or adjustment of purchases.

London is a leading port of arrival for American apples, but Liverpool is a very important distributing center for northern cities. Glasgow is the great receiving port of Scotland and has a very successful auction system. Manchester, with its ship canal, and Southampton, with its improved docking facilities, are of growing importance. Cardiff and Bristol serve the markets of southern Wales and western England.

*Other Markets*

Norway, Sweden, Denmark, Holland, and Germany show preference for boxed apples of medium size and of the standard red varieties. Orders are placed by Danish importers through their American agents,

who in turn place the orders with shippers. Collection is made by sight draft attached to bill of lading. Many boxed apples are sold at the semiweekly auctions in Copenhagen, Gothenburg, and Rotterdam, which are attended by the apple buyers from Holland and the Scandinavian countries. Rotterdam is the distributing point for Holland, the Rhineland, and as far south as the Swiss border.

Auctions are held at the steamship sheds on Mondays and Wednesdays. The brokers have their men at the docks, who separate the packages of fruit into piles according to variety, brand, size, and grade as they are unloaded. The fruit is then catalogued for sale in the manner that is common to all fruit auction sales. Some of the Dutch brokers maintain branch houses in western Germany to work up trade and to maintain direct connections with that trade. In years of normal crops, Holland and Germany are supplied with domestic apples during the fall months. Ordinarily, there will be some demand for American apples for the Christmas trade starting the first of December, but the real demand comes after the first of January and lasts until the end of the season. Rotterdam shows a much keener demand for boxed apples than for those in barrels. The outlet is for fancy fruit.

Most of the supply in Scandinavian markets is from stock held in New York or reshipped from Hull or other British port markets. Auction sales at Hamburg are a feature of the German trade in American boxed apples.

Argentine importers order by cable, paying for the fruit on receipt of bill, or they handle on commission. The fruit is placed in cold storage at Buenos Aires and sold in jobbing lots.

## GRADING

Grading has been the backbone of the boxed apple industry, and enforcement of the grades has necessarily been one of the greatest tasks confronting the industry. Boxed apple growers were pioneers in establishing standard grades through which their product has gained recognition and its market integrity has been assured. Only by establishing and adhering to such standards has the boxed apple industry been able to compete with other apple producing sections more favorably located as to markets.

Many of the far western states that pack boxed apples have established definite grades for this product and provide means and methods of forcing growers to grade and pack their fruit according to law. Extra



Fancy, Fancy, and C grades are those most commonly packed. A lower, or fourth, grade is sometimes put up. A combination grade is made by combining Extra Fancy and Fancy or Fancy and C grades. An orchard-run grade consists of Extra Fancy, Fancy and C grades.

Sizing machines are in very general use in most boxed apple sections. Their chief advantage lies in the fact that the fruit is sized for the packer and the human element does not enter into the operation. Most machines size the apple on the basis of weight rather than measurement. The smaller machines, which are used by the small growers, handle one or two sizes; the larger ones, handling three sizes, are used by large growers and community packing houses.

### *Inspection*

Thorough inspection has served to eliminate deception and dishonest packing, to encourage the production of high quality fruit, to reduce waste by preventing the shipment of inferior fruit, and has done a great deal towards stabilizing the industry.

The states that have compulsory laws for packing apples under definite grades provide an inspection system for enforcing the grading laws. It has been impossible for them to inspect each car shipped, and their duties are mainly of a police nature, but local public sentiment favors the grading laws, and little difficulty has been encountered through the shipping of apples not up to grade. Cooperative shipping and selling organizations and local cash buyers have maintained extensive private inspection forces to insure integrity of their packs and have thus been important factors in aiding enforcement of the laws. They label each box with the name of their organization, and as a matter of pride and sound business it is their concern to see that each box of apples is up to the grade as marked.

In 1922, the Federal service was expanded to include shipping point inspection for fruits and vegetables. Growers and shippers of boxed apples were among the first to ask for this service and they are making extensive use of it. Cooperative agreements have been worked out between the state and Federal authorities whereby inspections are supervised by Federal employees at various shipping points.

### FINANCING

It is a practice of all types of apple shippers to sell as many cars as possible on f.o.b. orders. When such cars are shipped, drafts are

drawn on the buyer. The shipper presents the bill of lading with the draft to his local banker. In turn, the banker gives the shipper credit for part or all of the amount of the draft and presents it for collection through a correspondent bank.

Advances by local dealers to the grower may be either in cash or supplies, to be used in producing and delivering the crop. The loan is usually based on a per-box basis, amounting to about 50% of the probable selling price. Supplies are usually charged for at current retail prices and handled at the rate of 8%, 9%, or 10% interest. As security for advances, a crop lien is frequently taken, although in many cases the marketing contract or selling privilege given to the dealer is considered sufficient security. Lenders may also accept growers' notes as security. Traveling dealers finance the growers directly or through local dealers.

To obtain a sufficient volume of business, private sales agencies and commission houses often find it necessary to finance the individual grower or cooperative association. In making these loans they require security similar to that which is acceptable to the cash buyer.

Cooperative associations have methods of financing the growers. It is partly through efficient handling of this phase of their business that they are able to attract and hold their membership. A local association usually has contracts with its growers for delivery and disposition of the fruit. To obtain money to make cash advances, associations may take the growers' notes to the bank and use them as security on which to borrow. They may use a crop mortgage or marketing contract also as security for a loan. Cooperative associations often obtain cash advances from private sales organizations and commission firms. In each case the growers' notes, together with the marketing contract, are taken as security.

## XXI

### CITRUS FRUITS<sup>1</sup>

ORANGES, grapefruit, and lemons constitute by far the larger percentage of citrus fruit produced, although there are other varieties, such as lime, kumquat, or gold orange, and tangerine.

There has been a tremendous expansion in the citrus fruit industry in California. From a small commercial beginning, it has now reached proportions of probably more than 20,000,000 trees and is one of the most productive branches of horticultural industry in any state in the country. Oranges and lemons are the most important citrus fruits grown in California, while in Florida, oranges and grapefruit predominate. Within comparatively recent years, considerable expansion has occurred in the citrus fruit industry of Arizona.

The steadily increasing yield of lemons presents a serious marketing problem to the industry. Greatly increased yields in California have found a market in the United States, partly because imports of foreign lemons have been reduced. Twenty years ago, three-fourths of our supply of lemons was imported and one-fourth produced in California. In 1920, three-fourths of our supply was produced at home and one-fourth imported.

When marketing of the Florida citrus fruit crop was first organized along the lines developed in California, markets for Florida oranges lay only in a few large cities along the Atlantic slope. Now, Florida oranges are sold as far west as the Missouri River, with notably increasing demand in the Middle West. Grapefruit, which a few years ago was a comparatively unknown product, is now one of the most widely sold fruits.

#### THE CALIFORNIA FRUIT GROWERS EXCHANGE

The California Fruit Growers Exchange is one of the foremost examples of successful cooperative marketing. Many recently organized cooperative associations of fruit and vegetable growers are modeled upon what is believed to be the exchange plan. At the same time,

<sup>1</sup> From "Citrus Fruits," *Commerce Monthly*, June, 1924.



there is lack of understanding, outside of the California citrus district, as to the form of organization and operating methods of the exchange and the affiliated associations of which it is composed.

The central marketing agency—the California Fruit Growers Exchange—is not the entire exchange system, nor, indeed, its most important unit. On February 1, 1923, the system was composed of 192 commercial packing companies, but approximately 75% are cooperative packing associations. These associations are controlled exclusively by their grower-members, and their directors are generally men of more than ordinary business ability. Several associations own property valued at \$300,000 or more and do a business of over \$1,000,000 annually.

The associations harvest the fruit of their members and prepare it for market. Frequently the fruit is hauled from the orchards to the packing house in association motor trucks. Some associations perform certain cultural services for their members, such as pruning or fumigating orchards.

Nearly all local associations, individual shippers, and packing companies are organized into 20 district exchanges. About 20 scattered local units, which do not fall into any sectional group, contract directly with the central agency and are known as direct-contract shippers.

The representatives selected by the various district exchanges elect themselves directors of the California Fruit Growers Exchange. The board of directors elects officers and a general manager and, upon the recommendation of the general manager, the heads of the various departments. The exchange directors meet weekly.

The exchange system, therefore, is composed of a large number of strong independent local units, federated for convenience into district exchanges, through which they govern and which form operating links between them and the California Fruit Growers Exchange. This central organization is the marketing agency of the federated local units, controlled by them, and operated to correlate and interpret their policies and activities.

Distinct from and independent of their marketing agency, the federated associations have created a purchasing organization, known as the Fruit Growers Supply Company. Similarly, the Exchange Orange Products Company and the Exchange Lemon Products Company are owned and controlled by the associations. These companies are organized for the manufacture of by-products from cull oranges and lemons.

*Marketing Functions of the Exchange*

The district exchange is the sales agent of its members. In his capacity as sales agent for the shippers in his district, the district exchange manager apportions all orders from buyers that do not specify the pack of a particular shipper. He also gives billing and routing and instructions for cars that are not shipped on order.

The district manager is in constant touch with the sales and traffic departments of the exchange and, acting on market information received through this source and his knowledge of the shipments from his district, he places a price upon the various grades of fruit in the several shipments from his district. If for any reason the shipment cannot be sold at the price asked, neither the agent in the market nor the sales agent in the central office of the exchange is authorized to accept a lower price. The best offer received must be referred to the district exchange and usually, after consultation with the association manager, either the offer is accepted, or instructions are given by the district exchange to divert the car to another market.

The district exchanges withhold all charges made against the fruit for marketing or other purposes. A fixed "retain" per box is determined at the beginning of each season. This sum includes the estimated costs of the district exchange, the cost of maintaining the central exchange, including all branch offices, a fixed advertising charge, and the established assessment for stock in the Fruit Growers Supply Company.

At the end of the fiscal year, the cost of operating the district exchange and the central exchange is determined, and any surplus is returned to the shippers in proportion to the amount contributed by each.

The keynote of the exchange sales policy is the equable distribution of supplies. This means not only that every car-lot market in the country shall be supplied with that quantity of oranges and lemons which it can consume from day to day or from week to week, but also that the entire crop shall be distributed over the shipping season in such a manner as to satisfy consumer demand and to avoid an over-supply at one period and shortages at other times. The total supply is fixed by natural conditions and cannot be increased or decreased by any of the agencies engaged in production or marketing. Given a definite supply, therefore, the sales problems consist in distributing this supply throughout the season and over the market territory in such a way as to meet the maximum demand at all times.

*The Advertising Department of the Exchange*

Advertising was begun in 1907 with an appropriation of \$6,000 for a newspaper campaign in Iowa. The results of this campaign were closely watched, and all indications pointed to the possibility of greatly increasing consumption through advertising. An appropriation of \$26,000 was made the following year, and some display material was used.

The advertising appropriation has been increased to approximately \$800,000 annually at the present time, which is about 0.8% of the delivered value of the fruit. The advertising campaign has centered around the "Sunkist" trade-mark of the exchange. Color advertisements stressing the delicious and healthful quality of Sunkist oranges and the varied uses of Sunkist lemons appear regularly in prominent magazines.

All the chief mediums of advertising are employed in varying degrees, as seems best to accomplish the objectives of the exchange: (1) To increase the total consumption of oranges and lemons; (2) to stimulate a consumer and trade preference for the Sunkist brand of oranges and lemons; and (3) to reduce the cost of distribution by promoting, with the trade, better displays, more rapid turnover of supplies, reasonable margins, and better merchandising generally.

Magazines, newspapers, posters, street car advertising, and display material are used throughout the year to broadcast reasons and reminders for the greater use of oranges and lemons. Personal work is carried on with the retailers to enlist their cooperation and to supplement the general advertising program.

Personal contact with the retailer is made through "dealer service men," who call on retail grocers and fruit stores, distribute advertising matter, and arrange displays of their fruit. These men cooperate with the retailers in promoting special sales in various cities. The "dealer service" activities of the exchange are based on a careful study of methods of retailing citrus fruit on a gross margin not exceeding 25%. The retailers are shown that a reasonable margin of profit on each transaction has a stimulating effect upon sales and results in increasing their total net profits through volume combined with rapid turnover.

*The Exchange Lemon Products Company*

The Exchange Lemon Products Company was organized in 1915 by members of lemon associations affiliated with the exchange, for the purpose of creating an outlet for cull lemons. According to figures sup-



plied by the manager of this company, from 3% to 20% of the lemons harvested each year are culls which are not suitable for shipment. In the aggregate, this amounts to from 500 to 3,000 cars annually and represents an appreciable loss to the producers.

### *Standardization of the Product*

The associations have played a leading part in improving the grade of oranges and lemons shipped out of the state. The pooling system made it necessary to establish grades and brands within the association, and the fact that the fruit of each association was sold on the market in competition with that of all other associations gave an incentive to careful grading. It was not until the adoption of the "Sunkist" trade-mark, however, that the necessity for a unification of the grade standards of all associations became apparent. As the owner of the "Sunkist" trade-mark, the central exchange was in a position to insist that all fruit shipped under this label should conform to a certain standard.

### *Stimulation of Consumer Demand*

One of the difficult problems in the sale of citrus fruit has been to dispose satisfactorily of the extra large and small sizes. Consumers prefer the medium sizes, and the "off sizes" fail to move and soon clog the channels of trade for all oranges. When the whole crop shows a tendency to run to large or to small sizes, promoting with the trade the advantages of large or small oranges, as the case may be, has modified the consumer demand to a considerable extent.

An increasingly effective method of facilitating the sale of these sizes has been through the stimulation of demand for fresh-fruit orange and lemon drinks at soda fountains. Off sizes contain as much juice of equal quality as the more preferred sizes and are satisfactory for fountain use. But an unexpected obstacle was met when the development of this market was first begun. Dispensers disliked to prepare drinks from fresh fruit, particularly at rush periods, because of the unavoidable untidiness and the time required to prepare such drinks with a small extractor. Synthetic substitutes of all kinds were used by soda fountains, and a demand for fresh-fruit drinks was not encouraged.

To overcome this obstacle, the exchange began the manufacture of a fountain juice extractor. The customer sees the drink made before him from fresh fruit, and the display of the extractor and the fruit that accompanies it stimulates the demand for lemonade and orangeade. The dealers' objections are overcome because the machine enables the

dispenser to prepare fruit drinks quickly and without the untidiness of the old method. The exchange manufactures and sells these machines at cost in order to stimulate the demand for orangeade and lemonade made from fresh fruit. More than 5,200 extractors were sold during the first nine months of operation, up to October, 1922.

### *Extension of the Marketing Season*

Since the organization of the exchange, oranges have been shipped from California every month of the year. Formerly, the shipping season was from December to May or June. A marketing period 12 months long has resulted from heavy planting of the Valencia orange, which at the time the exchange was organized was of little commercial importance.

The development of commercial plantings of Valencia oranges after the organization of the exchange has added much strength to the cooperative marketing system, because (1) the output of the industry has been doubled without marketing conflicts, and (2) the exchange has been enabled to keep its sales and office force employed throughout the year. Furthermore, oranges can be held on the trees for three or four months after reaching maturity, and sound, "dark green" lemons may be stored for a similar period. Aside from the fact that two varieties of oranges have been developed with nonconflicting marketing seasons, each of these varieties can be marketed over a longer period than any deciduous fruit, with the possible exception of the apple.

Lemons are picked throughout the year. The heaviest production is during the spring months; these lemons, as a rule, go on the market during the summer when the demand is greatest. The demand for lemon drinks during hot weather is the most important single factor in the marketing of lemons. The exchange, however, through its advertising, has stressed winter uses of lemons and has had some success in establishing a year-round market.

### *Grading, Sizing, and Packing Oranges<sup>2</sup>*

From the drier, oranges are carried to the "grading belt." The grading belt is in reality a series of canvas belts, moving at a moderate speed and divided into several longitudinal sections. The graders, four or five in number, separate the various grades and place the fruit of each grade in the proper section of the belt. The first grade is carried

<sup>2</sup> From A. W. McKay and W. M. Stevens, *Operating Methods and Expense of Cooperative Citrus Fruit Marketing Agencies*, United States Department of Agriculture, Department Bulletin No. 1261, July, 1924.

to the "sizer" reserved for this grade, and the second and third grades to other sizers.

Orange sizes are described according to the number required to pack a standard box, as "150's," "176's," etc. The so-called standard sizes are 126, 150, 176, 200, and 216. As a rule, sizes in a particular lot of fruit range from 96 to 252, but a large proportion of these are standard sizes. Seasonal conditions, however, may result in a crop with an undue proportion of large or small sizes. The marketing of "off sizes" is one of the difficult problems confronting shippers of citrus fruits.

Oranges are neatly wrapped and packed according to a standard plan. All first- and second-grade fruit is wrapped in strong tissue paper bearing the brand name or trade-mark under which the fruit is packed.

#### *Expense of Distribution*

The local associations affiliated with the California Fruit Growers Exchange, harvest, grade, and pack the fruit, and load it in refrigerator cars. The fruit is sold by the district exchanges through the facilities provided by the central exchange. The central exchange maintains an orange and lemon sales office in Los Angeles and agents in all important markets. At the present time, there are six division offices and 54 district offices which are under the direction of men on the pay roll of the exchange. In addition, the exchange is represented by eight brokers with whom it has direct contacts, and also by a number of brokers in smaller markets who operate under the direction of the nearest district or division manager. Although the district exchange managers do not deal directly with the market agents of the exchange, they direct, after consultation with the sales managers of the exchange, the place and time of sale and the price of shipments from their district.

#### *Wholesale and Retail Margins*

Oranges and lemons are sold through the fruit auctions to jobbers and retailers, or by private sale to car-lot wholesalers, who resell the fruit to smaller jobbers or directly to retail merchants. There are other avenues for the sale of citrus fruit, but these channels are in most general use. The margin per box received by the wholesaler is only slightly less than the entire expense of the local association, the district exchange, and the central exchange. The wholesalers' average



margin for the five-year period 1917-1921 was 61 cents a box for oranges and 83 cents for lemons.

The retailers' margin is considerably greater than that of the wholesaler. For oranges, it has averaged \$1.88 a box for the five-year period 1917-1921, and \$2.78 a box for lemons for the same period, according to data collected by the exchange.

As an average for the five-year period, 52% of the total price paid for oranges by the consumer and 56% of the price paid for lemons are absorbed by the transportation, wholesaling, and retailing agencies.

### *Cold Storage*<sup>3</sup>

Neither oranges nor grapefruit are held in cold storage to any extent in the producing districts prior to shipment to the markets. Limited quantities of both oranges and grapefruit are, however, frequently placed in cold storage at the market end. The success with which sound fruit can be held in storage depends primarily on two factors, the length of the time in storage and the temperature at which it is held. Oranges, grapefruit, and lemons should be stored at temperatures considerably above 32° F.; oranges at 38° to 40°, lemons at about 42°, and grapefruit at 45° to 50°. Even at these temperatures the period of successful storage is comparatively short, not usually exceeding two months and frequently not more than a month or six weeks.

<sup>3</sup> From H. J. Ramsay, *Handling and Shipping Citrus Fruits in the Gulf States*, United States Department of Agriculture, Farmers' Bulletin No. 696, November 1, 1915.

## XXII

### PEACHES<sup>1</sup>

#### *Packages*

THE Georgia carrier is the best package in the East for long-distance shipment of fancy fruit. A useful package for nearby markets and especially for early peaches is the Climax basket. It is made in standard sizes, as 4, 6, 8 quarts. The fruit is packed in layers. In New York, 10, 14, and 16-quart splint baskets are in use.

#### *Loading Bushel Baskets*

One excellent method is to place the first row along the side of the car from bunker to bunker, care being taken to leave a space of a few inches between the end basket and the bunker at one end. The next tier is started by placing the first basket wedged against the walls of the car so that half the basket is over the empty space and half on the basket. All baskets in that tier rest on two baskets. They are not tiered on top of each other. The third tier is placed over the first and the fourth over the second. The next row of baskets on the floor of the car is offset, so that they rest in the space between two baskets. Loaded in this way, no basket rests directly on another. It rests on two, and there is no direct weight on the contents. It is all on the basket.

#### *Selling Peaches*

The northern peach crop is moved in September. In some cases the same markets are supplied with peaches from Michigan, Ohio, and New York. In addition, during recent years, owing to favorable freight rates, peaches from Colorado, Washington, Oregon, and California may reach the same markets. This merely illustrates the competition.

#### *Necessity for Grades and Standards*

A perishable crop like peaches must move at once and must either be packed to standard grade or sold subject to inspection on arrival. Standardizing the grade and pack is desirable.

<sup>1</sup> From Samuel Fraser, *American Fruits*, New York, Orange-Judd Publishing Company, 1924.

*Georgia Peaches*

In Georgia, the crop is grown for shipment. Shippers report from 75% to 95% of the movement between the years 1913 to 1921, inclusive, as marketed east of the Mississippi River and north of the Ohio River. About 2% of the crop was sold within the state and moved by express. In 1921, about 1½% of the crop was exported. The packages used are the Georgia carrier, shipped as 42 pounds when packed, and the bushel basket, shipped as 50 pounds. A common load was 476 carriers, shipped as 20,000 pounds. From 386 bushels to over 400 bushels is a common load.

*Classification*

Commercial peaches are classified according to: Whether the pit is free or clings to the flesh, as freestone, semicling, or clingstone; the color of the flesh, as yellow, white, or red; the time of maturity, as early, midseason, and late; the skin, whether smooth or downy; the shape of the fruit, as round, flat, or beaked; the size of the flower, large as in Greensboro, medium as in Belle, small as in Elberta, Early Crawford.



## XXIII

### CHERRIES<sup>1</sup>

CHERRY growing is practically unanimous at Sturgeon Bay [Wisconsin], and so is cooperative marketing. Full 98% of the cherries grown on the Door County peninsula are marketed through the Door County Fruit Growers' Union, which was organized in 1910 and reorganized in 1917. Formerly, all the cherries were sold in the fresh fruit markets. The increased production made this more difficult each year, so in 1918 the Fruit Growers' Canning Company, a subsidiary, was organized to take care of the surplus. It has been almost a case of the tail wagging the dog, the cannery using 75% of the cherries in 1921. This does not mean much reduction in volume sold to the fresh fruit markets, as the production of cherries has increased tremendously. The total value of the 1921 crop was more than \$1,000,000.

The Door County Fruit Growers' Union is a joint stock corporation with \$22,000 capital, divided among 300 growers. When more capital is needed, an annual levy of 1% or 2% on the value of cherries marketed is made. The canning company is also a corporation, with \$125,000 capital held by 60 growers. No person may own stock unless he is a member of the Fruit Growers' Union. Eight per cent is paid on the capital and, aside from a moderate surplus, the rest of the income goes to the growers as part of the pay for cherries. Each winter the union contracts with the cannery to furnish a minimum percentage of its cherry crop. This percentage is determined after a survey of conditions by the officers.

The growers deliver their fruit to the Union at Sturgeon Bay, by truck or boat. This district is so compact that practically all is delivered in less than five hours from the tree. Picking is under the control of the manager. He specifies whether cherries are to be picked on the stem for the fresh fruit trade or off the stem for the cannery, and the amount to be delivered. A separate cooperative association, financed by some of the larger growers, supplies the labor for picking. It does most of the cherry harvesting for the district.

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<sup>1</sup> From Herman Steen, *Cooperative Marketing*, Garden City, New York, Doubleday, Page and Company, 1923.

Not a crate of cherries is consigned; every crate shipped as fresh fruit is sold f.o.b. The rest goes into the cannery, which buys no outside fruit. In 1921, it turned out 60,000 dozen No. 2 cans and 50,000 dozen No. 10 cans, an increase of 35% over 1920. Two varieties only—Early Richmond and Montmorency—are grown in Door County. The Union will not handle any others. Two grades are recognized in each variety. All fruit within each grade and variety is pooled for the season. The bulk of the canned cherries is sold to brokers on future delivery contracts long before the crop is picked. A grower can thus figure in the spring close to what his crop will net. These contracts are subject to allotment and to such things as a crop disaster.

Growers receive their first payments on the pools about September 1, this being about 30 days after the close of the picking season. Other payments are made around New Year's. Advances to cover the cost of picking are made on application. Financing is thus not much of a problem either to the canning company or to the Union, their capital stock being enough most of the time. During the harvest season it is usually necessary to borrow some money to pay labor and to buy cans and cases, but this is readily obtained on the stored canned cherries.

The fruit union is ostensibly based on a contract with the growers, but many have neglected to sign. They are all stockholders and are regarded as members whether under contract or not. "There is no other place for the growers to market their cherries, so we have not insisted on the contract," Moulton B. Goff, a director said. "If some competing agency were started, we would require contracts from all our members." It may be noted that under the conditions prevailing in this cherry district there is little need for a crop contract except to define in a legal way the relation between growers and their association—an important point, though often overlooked.

A comparison between prices netted by Sturgeon Bay growers with those received in Michigan, where cherries are ripe at about the same time, shows an advantage for Wisconsin of 10% to 25%. Wisconsin growers have a selling organization which takes care of surplus and all, while Michigan growers sell largely through commission men.

The Door County cherry cooperative has two strong points: (1) It markets practically all the fruit of its district, probably standing higher in that respect than any other cooperative association in America; (2) it converts a surplus of perishables into nonperishable and easily salable form, thus leaving the growers entirely independent of the vagaries of the fresh fruit market. The f.o.b. sale policy eliminates

commission men as a factor. On the other hand, its organization is the objectionable capital stock form, while the division of activities into five separate corporations adds tremendously to overhead and divides responsibility. There have also been certain faults in management, and serious difficulties were narrowly averted in 1922.<sup>2</sup>

<sup>2</sup> EDITOR'S NOTE (1927): The cooperative cherry marketing companies in the Sturgeon Bay region have been reorganized and a considerable amount of change has recently been made in the form of the company, but without a fundamental change in marketing methods.

## XXIV

### CRANBERRIES<sup>1</sup>

#### *The Origin of the American Cranberry Exchange*

THE American Cranberry Exchange, which handles the cranberries of the Wisconsin Cranberry Sales Company, the New England Cranberry Sales Company, and the Growers' Cranberry Company of New Jersey, is the outcome of numerous cranberry marketing experiences. The Wisconsin Cranberry Sales Company, which had been formed in 1906, included over 90% of the Wisconsin cranberry growers. Its marketing plan included a uniform grading of cranberries handled and a seasonal pooling system.

#### *Marketing Activities of the Central Cranberry Association*

The American Cranberry Exchange maintains a central office in New York and for part of each season a branch office in Chicago. It takes entire charge of the shipments after they leave the state associations. Sales are made to the wholesale dealers through brokers, but representatives and inspectors of the exchange keep in close touch with both the wholesale and retail trade. The most valuable service rendered by the exchange is the determination of the opening price each season, based upon estimates of the size of the crop and of demand conditions gleaned from reports of brokers and dealers in the various markets. The problem is to decide on an opening price that will encourage active buying and at the same time bring the highest average returns to the growers for the whole crop. It is the policy of the exchange to open with a very conservative price and then to advance the price as the season progresses if the fruit moves into consumptive channels fast enough to indicate a shortage before the end of the normal cranberry sales period. This policy keeps the good will of the wholesale and retail dealers, as they do not fear being caught with heavy stocks under falling prices.

#### *Marketing Activities of the Local Cranberry Associations*

The three companies, or local associations, in Massachusetts, New

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<sup>1</sup> From Alva Benton, *Marketing of Farm Products*, Chicago, A. W. Shaw Company, 1926.



Jersey, and Wisconsin which support the American Cranberry Exchange are the connecting link between it and the growers. The local associations maintain offices in the cranberry districts and distribute the orders received from the central association and later distribute the returns to the growers. The Massachusetts association maintains some plants where growers may have their berries screened, sorted, and packed at cost. The growers, however, perform most of these marketing services, with field men of the association acting in a supervisory capacity. Local associations take charge of all dealings with the transportation companies and act as an information agency for the growers. To meet the expenses of operation, the local associations are given 2% of the value of the sales they handle.

#### *Advertising Cranberries*

Advertising to increase the consumption of cranberries was first tried by the American Cranberry Exchange in 1916, and was found to be successful. In succeeding years the amount expended in advertising has fluctuated with the size of the crop and market conditions. The crop of 1923 was the largest on record, and the amount expended for advertising was \$194,538, the largest annual expenditure for this purpose to date. The exchange handled 65.2% of the total crop in the United States in 1924 and its sales aggregated, in round numbers, \$3,000,000. Advertising funds are raised by a special assessment on the barrel basis. Successful advertising is made possible through careful grading and a brand, "Eatmor," under which all high quality cranberries are sold when handled by the exchange. The wholesale trade recognizes 80 different brands, yet the public buys under the one brand, "Eatmor," which is a guaranty of quality vouched for by the exchange. To cover expenses of operation, the exchange is allowed 5% of the total sales.

## XXV

### ONIONS<sup>1</sup>

#### LOCAL SALES METHODS

A VERY large proportion of all onions go from the field at once into the hands of local buyers or local agents of city dealers or are consigned to commission men in the central markets. This is true both of early and of late onions.

##### *The Early Crop*

Early southern onions are on the market only a very short time and must be handled through some system that moves them quickly and gets them into the hands of the consumer within a few days after reaching the terminal market. In most instances the first shipments of onions bring much higher prices than those that are shipped a few days later. For this reason there is an attempt by both farmers and shipper to place their onions on the market as soon as possible after they are ready to ship.

The farmer who raises early southern onions in Texas and California usually sells for cash to a local buyer at harvest time as the cars are loaded. Some growers contract to sell to a buyer before planting time or before harvest, at a specified price or for the privilege of marketing the crop. Comparatively few farmers themselves ship onions on consignment, although consignment shipments by local dealers are in some years the most prevalent form of sale.

The local buyer or shipper of early onions is likely to be an agent of some commission firm or onion dealer in the large central markets, to whom he forwards his purchases as quickly as possible after they have been delivered at the local station. He may, however, be an independent buyer who ships to commission men or who sells outright on what are called f.o.b. orders. These orders, or offers, for carloads of onions usually come to him by wire, and the cars are sent on to the city buyer, who has the privilege of inspecting them before paying for them. Frequently, early in the season, when the market is falling

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<sup>1</sup> From A. E. Chance and G. B. Fiske, *Marketing Onions*, United States Department of Agriculture, Department Bulletin No. 1325, 1925.

rapidly, shipments are made by express rather than by freight in the endeavor to reach the central market and sell at the higher price. Methods of purchase and sale vary greatly from year to year and depend on the character of the crop competition on the market and the conditions of transportation.

Some difficult problems arise in marketing the early crop, because the quality is variable, the product deteriorates rapidly, and storage is not possible. Methods of grading and inspection are still frequently unsatisfactory. Another problem is that of car supply, which is further discussed under the topic of transportation. Considering the very long shipping distances, the wide distribution of this early crop is amazing.

Until about five or ten years ago, the bulk of the Louisiana onion crop was consigned to New Orleans dealers. Since that time, only about 10% is consigned; the remainder is sold f.o.b., usually before digging. This stock is put up in sacks averaging 100 pounds. A considerable portion of the crop is handled by cooperative associations, and these onions are, as a rule, put up in new sacks and are fairly well graded; but the several New Orleans jobbers, who usually ship north, re-sort much stock before loading. No attempt is made to meet any grade requirements; only the very small onions and very bad doubles and bottle necks are thrown out.

### *The Late Crop*

The late onion crop is marketed through regular dealers and is on a somewhat more stable basis than the early crop. The best of the onions can be stored for some time, grades have become fairly well established, there is usually no great haste in rushing the onions from the field to the market, and the distances shipped are not nearly so great as is the case with early onions. Exception must be made in the case of shipments of late onions from California, which appear on the market throughout the year, but even these late onions are more easily shipped than the early crop of Texas or the Coachella Valley.

Few growers in the western New York section attempt to market their own crops. They grade the stock and sell it to the dealer by the bushel at the car door or loading point, letting him effect the sale to city dealers with or without holding in storage. The dealer sells on the 100-pound basis, f.o.b. usual terms. A few large growers load their own cars and sell on the local track or consign to city dealers.

In Orange County, New York, growers generally sell most of their

crop in the field at harvest time to local buyers. The balance is consigned, stored, or taken by truck to New York City and vicinity, where it is sold to jobbers or wholesale and retail grocers. Most of the local dealers, who usually are also growers, sell to city commission firms on a joint account basis, although some cars are consigned.

In Ohio shipping sections, onions are sold in bulk by the bushel and delivered by the growers to the dealers' warehouses. The dealers sort and grade the stock. The onions are then crated and stored until the dealer sells them, when they are again re-sorted and sacked. There are practically no buyers on the ground except the local dealers. A few of the growers have their own warehouses, but most growers are obliged to sell soon after harvesting.

Conditions are very uniform in the onion shipping districts of Indiana and other midwestern sections. About 75% of the crop is sold in the field to local dealers at harvest time. Occasionally a grower consigns a car. Most dealers' sales are made on orders received by telegraph, but there are some consignments, and some joint account sales, in which two dealers jointly furnish capital for buying and share the profit or loss. Most of the local dealers in these sections are representatives of large city concerns.

Onions in the delta region of California are mostly sold by the sack for cash along the river bank. Crops grown on contract or on the crop sharing plan are sold by the contractor and shipper for the account of the grower.

The Connecticut Valley crop is sold chiefly to large local dealers, who may either ship or store their purchases, according to market conditions and outlook. There are a very few traveling buyers who purchase direct from the grower. Dealers usually make sales f.o.b. usual terms, except when the city buyer is present, when the terms are cash track. Since most of the sales are made to firms who have no local buyers or are made late in the season after the buyers have left, f.o.b. usual terms is the prevailing basis of sale in this district.

Onions grown in Kentucky are brought in barrels by the growers to the packing sheds of the local dealer and payment is made on the barrel basis.

### *Cooperative Marketing*

Reports received by the Department of Agriculture indicate that seven associations handled onions in 1922 and shipped 974 cars valued at \$464,826. Of the seven, only two handled onions exclusively, four handled other vegetables also, and one association handled both fruits



and vegetables. One association was located in each of the following states: Oregon, Texas, California, Minnesota, Michigan, Washington, and Virginia. One of these associations was organized in 1906, one in 1907, two in 1916, two in 1919, and one in 1922. All these associations were of a local or regional character.

In July, 1922, under the guidance of the Texas Farm Bureau Federation, the Texas Farm Bureau Onion Growers' Exchange was formed. This organization is a federation of seven local associations, with headquarters at San Antonio. The exchange handles the sales of the locals, buys supplies for the grower members, and assists the growers in financing the growing and harvesting of the crop. From reports received by the department, this association reported, in 1923, sales of 944 cars of onions valued at \$646,715.

A second large federation was formed in the summer of 1923, under the guidance of the Indiana Farm Bureau Federation. It is known as the Indiana Farm Bureau Onion Growers' Exchange, and maintains an office at Warsaw. At present, it is made up of 12 county organizations. Its membership in 1923 was 321, which, according to officials of the association, is about 60% of the onion growers in Indiana. From reports received to date, this association marketed 596 cars of onions in 1923, valued at \$300,000. These onions were sold in 88 markets in 25 states. This is in contrast with 1922, when 2,148 cars of Indiana onions were sold in nine large markets. The association therefore has succeeded in making a wider distribution of the crop than has previously been made by outside agencies.

### *Storage*

Most onions are placed in storage during October. By the end of November, shipments from the field and from temporary storage have ceased and shipments thereafter are almost entirely of storage onions. Approximately 50% to 70% of the commercial onions are shipped directly from the harvest field or from temporary storages. The remainder is placed in permanent storage in producing regions and is moved throughout the winter.

Long-period storage of onions in producing sections is important in New York, the Connecticut Valley, the Middle West, and in central California. Early onions are not storable for any appreciable time, and the so-called intermediate crop is shipped within a few days after harvest. Moreover, in Ohio and Indiana commercial storage has been developed to only a moderate extent, so that during the fall of 1922,

when much of the eastern crop was of low grade, many cars of onions were shipped from Ohio and Indiana to the Connecticut Valley and there placed in storage, shippers availing themselves of the "storage in transit" privileges granted by the railroads. The greater part of the locally stored onions is kept on the farm in sheds or other buildings until hard freezing weather, usually about December 1. At that time they are either transferred to the warehouse of the local dealer or, if they have not been sold to a dealer, the grower himself ships them to market or transfers them to commercial storage.

Comparatively few onions are kept in cold storage, and the greater portion of these only after January 1, at terminal markets. Onions will keep in prime condition in common storage until that time if conditions of harvesting and storage are favorable, and to save cold storage charges most dealers wait until the first of the year before transferring stock. On account of their odor, onions present a problem when stored with other food products.

One of the important problems of storage is to obtain a sufficient supply of storable onions. Out of a crop of late onions, sometimes only 30% to 35% is dependable storage stock. In other years the percentage is much higher. Another problem is that of taking care of the onions while in storage to prevent overheating and the development of disease. The labor costs of storing onions, sorting, grading, and removing them from storage are considerable. Taking one year with another, very few farmers have found it advantageous to store onions, either in their own warehouses or in commercial storages. There is no doubt, however, that in some years storage has been very profitable.

The element of price risk in stored onions is great, however, and numerous dealers have lost heavily in their failure to guess correctly the trend of the market. To offset this, some of them have found the storage of onions very profitable in years when a late or short spring crop followed upon a comparatively short main crop. Taking one year with another, it is apparent that the risk and losses of winter storage are such that only a large operator or a grower with unusual financial resources should undertake them.

## TRANSPORTATION

### *Early Onions*

The first onions on the market usually bring the highest prices, and growers are likely to begin to harvest before the onions are fully ready for shipment and hurry them to market by the quickest method. The

first Texas onions may come through by express; later, most arrive by fast freight.

The perishable nature of the product, the consequent necessary care in handling, the fast train schedule, but especially the long distance from field to market, make the freight and handling cost very heavy. In the spring of 1921, the freight charges on 395 cars of Texas onions before they reached the receiver's hands amounted to \$462 per car, approximately half (46.91%) of the wholesale price. The average haul was 2,000 miles. Of the 395 cars, 124 were shipped by boat from Galveston to New York.

The problem of car supply is sometimes serious in the movement of the early crop. Favorable weather matures the onions so quickly that the marketing season becomes a feverish scramble to obtain cars and get the onions loaded and away. Consequently, car shortage results and there is the difficult task of justly allotting empty cars to the numerous shippers.

The high railroad freight charges and the increased length of time in transit by rail have encouraged shipment by water from Galveston to New York City since 1921 to the extent of 10% to 15% of the annual movement from Texas. On the whole, boat shipment has been successful. The time is not much longer than by rail, and the freight charges are much less.

#### *Late Onions*

Compared with many other vegetables, late onions are not difficult to ship by rail. Occasionally, the early fall loadings are liable to injury by heat. Shipments after November 1 are usually in protected refrigerator cars to prevent freezing. The average carload of late onions contains 500 bushels. Heavy loading—600 bushels or more—is likely to result in injury to the bottom layers.

#### SEASONAL MOVEMENT

The movement to market begins about April 1 and lasts about 13 months, or until May of the following year. Occasionally, the first early crop shipments begin some time in March and on rare occasions the late crop does not get out of the way until early in June.

The peak shipment of domestic Bermuda onions occurs between April 20 and May 20, after which the shipments fall off abruptly. One-third to two-thirds of this crop goes to market in May. The average



June shipments are the lowest of any month; the movement is about one-third as large as during May.

The late crop movement begins in July, increases until about October 10 to 20, and reaches its lowest point in late November or early December, depending upon the severity of the weather and the volume of the crop. Practically all onions have gone into storage before the end of November, and later shipments come out of storage.

Between the Bermudas and late crop movement, about 1,000 cars of intermediate onions are shipped, mostly from three states, New Jersey, Kentucky, and Virginia.

The short season for Texas Bermudas is followed by about 130 cars of later onions which come on the market from the last of July to late August and compete with the northern "set" onion crop. The late California crop also has a long season.

## WHOLESALE MARKETING

The prevailing marketing route for onions is from country dealer or agent to city car-lot receiver and thence in succession to jobber, to retailer, and to consumer.

The bulk of the car-lot supply is bought through dealers located at shipping points or is shipped by their agents at these points, or handled by city brokers operating in behalf of country shippers or cooperative associations. Commission sales of car lots are a small part of the trade in most city markets, but considerable local crated stock and numerous small-lot shipments are handled on commission, and a small proportion of the early northern receipts is sold at auction.

There are no dealers who handle onions exclusively except in one or two great markets like New York, but in many large cities there is a group of receivers and jobbers who handle mostly onions, cabbage, and potatoes. In small city markets the dealers in a more or less complete line of general produce handle onions.

Most sales by car-lot receivers are of broken lots of 25 to 100 packages to jobbers and small wholesalers, who depend on the receivers for their supplies from day to day. In some cities, many retailers buy directly from cars, buying as few as one or two packages at a time, usually at a premium over jobbing prices, but most sales to retailers in the great city markets are made by wholesalers and jobbers, from stores and the various public markets.

Car-lot sales are sometimes made in the wholesale markets to specu-



lators who depend mostly on the peddler trade, though frequently these sell to jobbers at a slight advance over cost. Some car-lot sales during the late fall and early winter months are made to out-of-town buyers and to jobbers and wholesalers who wish to store onions.

The chain store grocery companies handle as high as 15% of the receipts in certain markets. They buy mostly f.o.b. at shipping point, but whenever short of supplies they appear on the local market.

In markets below the first rank, the service of the various dealers are not clearly distinguishable. The car-lot receiver may be the jobber also and he may sell in any quantity from one package to a carload, or he may even sell at retail. Occasionally, he receives some stock for sale on commission.

There is practically no distinction in such markets between receivers and jobbers, for the majority of the receivers job their stock. In middle western cities there is a distinction between these two classes of dealers and the small wholesalers who buy from the jobbers, unload the stuff into the store, and usually sell direct from the store or from the sidewalk in any quantity asked for. Such sales are considered wholesale, and the buyers in such cases must call for their purchases.

Frequently, when it is known the stock will be of a quality and condition that will meet requirements of the buyers, orders are taken before the car arrives. If the receiver is the jobber, as in many cities of 500,000 or less, he usually hauls the bulk of the car to his store to supply his needs, and any surplus is distributed among a few of the other jobbers. In late fall and early winter, carloads are purchased direct or through brokers by both wholesalers and jobbers to be stored for future needs. As a rule, the smaller the market center, the more confused is the marketing and the more pronounced the tendency to combine the functions of the different classes of dealers. Often the marketing systems of the smaller cities and towns are simple in appearance only, the market being practically a branch of some larger city market and drawing most of its outside supply from the various wholesale distributors there. In some cities of small to medium size, several small dealers combine to purchase full car lots through brokers, avoiding the usual jobbers' margin.

The home-grown stock hauled from adjacent farms constitutes from 5% to 15% of the onion supply of most large markets, and from one-third to a much larger proportion of the supply in many smaller markets near local producing areas. It is sold in a variety of ways, depending on how far the producer can dispense with the wholesale dealers.

Most growers close to market have small crops, which they cart or truck to town and sell in small lots to retail merchants or peddlers. Larger quantities may be sold to jobbers, either by the load or by the whole crop. If the quantity is very small, the grower is likely to peddle it out with other vegetables to consumers or ship it in small lots to city commission dealers. The larger the quantity and the longer the distance from market, the less the degree of personal attention from the grower and the greater his dependence on agencies of transportation and sale.

### *Market Preferences*

The yellow varieties, both in the early and the late crop, are given preference in eastern markets. Red or pink stock is not much wanted, except in a few cities of the South and Southwest, particularly St. Louis and Kansas City. White stock meets only a moderate demand anywhere. At times, especially in the fall, small, white pickling onions sell at a high premium over all other stock, but the outlet for these is limited. Australian Browns sell well in competition with the yellow stock and at times bring a slight premium over the eastern onions, but supplies are light.

In size, the medium onion is most desired. Prices have considerable bearing on this feature. When prices are low, a fairly large onion is wanted; but if prices are high, medium sizes are given preference, because of the demand of the small retailer, who sells onions by the pound or in even smaller quantities. The number of onions in the pound is the factor considered by the consumer. Preferable sizes of domestic early and late stock are from  $2\frac{1}{4}$  to  $2\frac{3}{4}$  inches in diameter. Boilers do not sell readily and, except in New York and a few other markets, usually have to be moved at a substantial discount. Preferable sizes of Spanish onions are from 3 to  $3\frac{3}{4}$  inches in diameter, with the one-third crate the best seller.

Imports from Spain and Egypt, some of them direct and some through English ports, are of chief importance, as they form the bulk of receipts. Liberal imports from Holland were an unusual feature of the 1923 season. Bermuda, formerly the chief source of early imports, now ships only a few thousand bushels, mostly grown from California seed, and ranks with Italy, Chile, Mexico, and other lesser sources of supply. About half the average imports of onions come to the United States during the last four months of the year; but following some seasons of domestic shortage, as in 1919 and 1921, the imports began early and continued large throughout the winter and spring.

About four-fifths of the average total onion imports to the United States are from Spain, and the United States ranks next to Great Britain as a market for Spanish onions. Imports from Spain come mostly from two Mediterranean points, Valencia and Denia. Although commonly spoken of as the Valencia, many of the oval, yellow Spanish onions coming into this country are from the Denia district.

## XXVI

### RAISINS

#### THE RAISIN INDUSTRY<sup>1</sup>

With the exception of very limited quantities produced in Arizona, Utah, and New Mexico, all the raisins grown in the United States are produced in California.

Drying is the most ancient and primitive of fruit preserving methods, the dried fruit containing much more nutritive value in proportion to its bulk than fresh fruit. In the raisin districts of this country, grapes are ripe by the middle of August, the season often lasting into November. The average time necessary for drying and curing a tray of raisins is about three weeks, depending on the weather, the earliest picked grapes drying in ten days and the later ones often taking four weeks or more.

The method of drying is very simple. The bunches are cut from the vines and placed in shallow trays two feet wide, three feet long, and one inch high, on which the grapes are allowed to sun-dry, being turned from time to time by simply placing an empty tray upside down on the full one and then turning both over and taking off the top tray. After the raisins are dried, they are stored away until they are packed and prepared for shipment.

#### *Packing Raisins*

The raisins as received at the packing house are weighed, and the loose raisins and those that are to be shipped as dried grapes are immediately run through a stemmer and grader, which stems, cleans, and assort the raisins into three or four different grades, after which they are packed and shipped to various parts of the country, some also being exported.

#### *Classes of Raisins*

Previous to the consolidated organization of the packers, the three grades of raisins on the stems were known as "Imperial," "Dehesia,"

<sup>1</sup> From G. C. Husmann, *The Raisin Industry*, United States Department of Agriculture, Department Bulletin No. 349, March, 1916.



and "Fancy Clusters," respectively. The California Raisin Growers' Association established classifications and grades similar to those of the Spanish raisin packers, on which the French trade names are also based. The original Spanish, as well as English terms with which they correspond and the different grades in descending order of quality are shown in the following:

Spanish Terms	French Terms	English Terms	California Terms
Imperial	Imperiaux Extra	Extra Imperial	6-Crown Cluster
Imperial Bajo	Imperiaux	Imperial Cluster	5-Crown Cluster
Royal Bajo	Royaux	Royal Cluster	4-Crown Cluster
Cuarta (4 <sup>a</sup> )	Surchoix Extra	Choicest	3-Crown Cluster
Quinta (5 <sup>a</sup> )	Choix Extra	Choice Cluster	2-Crown Cluster

The grading is optical, as a result of experience, there being no linear or cubic measurement standard. Thus, a nice cluster with all berries of large size would be a "Six-Crown Cluster," such being the very finest raisins on the stem. Loose raisins, or raisins off the stem, are graded into Two-Crown, Three-Crown, and Four-Crown raisins.

### *Seeded Raisins*

Seeded raisins are now the most important branch of the raisin industry. The seeded, or loose, raisins are packed in 50-pound boxes; in 1-pound cartons, 36 to the case; in 12-ounce cartons, 45 to the case; and some in bulk in 25-pound boxes.

## COOPERATIVE MARKETING OF RAISINS<sup>2</sup>

Previous to 1912, the raisin crop had always been handled by the packers, who processed and packed it and later sold it to the wholesalers. Their practice was to buy the crop at the lowest possible prices and, if conditions looked unfavorable, not to buy more than they could handle easily; the rest was allowed to spoil. The ten principal packers were known as the High Five and the Low Five.

It was to the High Five and the Low Five that the new cooperative company went in 1913 and offered to accept  $3\frac{1}{4}$  cents a pound for a period of five years for the raisins it controlled, that figure being the cost of production at that time. The offer was scornfully refused, and the company was compelled to pack its own raisins and develop facilities for reaching the wholesale trade.

The association took the raisin crop of 1913 as it was harvested and, after processing and packing, sold it through brokers who supplied the

<sup>2</sup> From Herman Steen, *Cooperative Marketing*, Garden City, New York, Doubleday, Page and Company, 1923.

wholesale trade. When the growers delivered their raisins, they were given a first payment on account.

The years following the organization of the California Associated Raisin Company were the first in which the raisin growers had ever enjoyed even a semblance of prosperity. Fresno, the raisin capital, changed from a sleepy, half-bankrupt town into a busy, bustling, prosperous city. Its banks no longer had to foreclose a block of mortgages every fall, but their vaults began to swell with the growing volume of raisin money. There was real money in raisins for the first time in 30 years.

The prosperity which attended the raisin industry when speculators were eliminated and prices stabilized caused a tremendous rush into raisin growing. The crop increased from 70,000 tons in 1912 to 190,000 tons in 1919.

In order to sell the increased volume of raisins caused by larger acreage, the raisin company advertised to create a larger demand. In 1914, \$120,000 was used for advertising, centered around the standardized quality of the association's Sun-Maid brand. In 1916, \$240,000 was used, and this has grown until the 1922 advertising expenditures exceeded \$2,000,000. In order to secure full benefit from its advertising, the raisin company changed its name to the Sun-Maid Raisin Growers.

The reason the raisin association has proved successful, according to the general manager of the company, is that it has eliminated speculation from the raisin industry and put it on a stable, substantial basis. "The old system, under which the grower sold his product direct to the packer or speculator, was inefficient and would have destroyed the industry had it continued," he said. "The consignment system which was used for several years was vicious and rotten; it was the mother of speculation, and the growers were nearly always robbed. The only system which has worked is the present one, under which the farmers grow raisins, the association prepares them for market and sells them to the wholesale trade. The speculators are entirely eliminated from the cycle."

Thinking it necessary to merchandise the increasing raisin crop more efficiently, to secure better distribution, and to connect sales and advertising efforts more closely, the raisin company in 1921 abandoned the plan of selling its products through brokers and began dealing directly with the wholesalers. This new plan has operated fully as cheaply as to pay the old brokerage charge of  $1\frac{1}{2}\%$ .

The raisin company owns a \$1,500,000 plant at Fresno and 30 smaller, scattered plants where its raisins are processed and packed. Ownership of these plants was necessary in the beginning because the packers would not deal with the association. This plan enables the growers to put their product into a nonperishable form before it is sold, a fact which gives the organization a strong advantage.

Growers deliver their raisins either to the packing plant or at loading stations which ship to packing plants. The raisins are then processed and shipped, to fill an order made perhaps months before. The prices at which the raisins are offered to the trade are made by the board of directors, which adjusts the scale each year. The grower receives a substantial payment at time of delivery, usually 4 cents a pound, and the balance in two or three payments, which are made as rapidly as funds accumulate from sales. The final payment is made November 15 of the year following delivery of the crop.

A considerable amount of finances is required through the fall months. This is partly managed by loans from the banks upon the association notes, partly by loans upon warehouse receipts, and partly through issuance of notes to growers.

In 1921, a fifteen-year contract was prepared, and 90% of the growers subscribed to it. It is one of the most rigid contracts ever adopted by any cooperative association. One of its unusual provisions binds the land to the association for the period of the contract, even if sold by the original owner.

The first method of pooling was simply to pay every grower the average price per pound obtained for the raisins less only the cost of operation. Later, separate pools were established for the different varieties and grades, a plan which is still followed.

One of the most spectacular achievements of the raisin association was the development of the 5-cent package to be sold as a confection—Little Sun-Maids, as they are known. They made a hit when placed on the market in June, 1921, and were probably better distributed in less time than any other like commodity which has ever been placed on the market.

For more than three years, beginning in 1918, the raisin company was in continuous hot water from Government investigation. The association was cleared in the first inquiry, but in 1920 the Federal Trade Commission censured it severely for four practices, namely: Price too high, contract binding grower for a term of years, "firm at



opening" price (which had already been abandoned), and export price lower than at home (which had also been abandoned).

At that point, the Department of Justice took a hand and notified President Giffen that the association would be prosecuted under the Sherman Anti-Trust Act unless the 1920 prices were lower than those of the previous year.

Just before the court was ready to hear the case, the department offered to drop the case if the association would sell 20,000 tons of its crop at \$5 below the market to the outside packers, to show that it was not a trust. This offer was accepted, as the association officers felt that they could not afford to jeopardize the existence of the association by fighting the case.

The court also suggested that the old contracts be abrogated at the end of the 1920 season, as the Department of Justice and the speculators alleged that growers had signed under duress.

Late in 1922 it became clear<sup>3</sup> that the Sun-Maid Raisin Growers could not continue with its old organization, which was not in step with recent agricultural legislation on cooperative marketing. The old management joined unanimously in creating the present management, which developed a new contract, adequate financing, and sound legal background.

From a merchandising point of view, the result has been that when the association is in control of the raisin market, prices are stabilized, the consumer is protected by the best quality, and at a price level in keeping with the times and a relative value to other food commodities. In this way the merchandiser, jobber, and retailer are fully protected, speculative profits and losses have been removed. The result has been that during the past five months the Sun-Maid Raisin Growers have sold, packed, and shipped double the maximum tonnage of raisins ever sold, packed and shipped in a similar period of the industry.

### *Export Trade*

The Sun-Maid Raisin Growers, Inc., are now selling their product in China at the rate of about \$1,000,000 gold a year.

From the beginning, the Sun-Maid Raisin Growers Association placed its wholesale business, that is, the problem of the proper distribution to the retailers, in the hands of a highly accepted Danish wholesaler who understood this part of the business, and who at the same time acted as adviser on the advertising, although not directing it.

<sup>3</sup> This and the three paragraphs following are from *Printers' Ink Weekly*, June 26, August 28, and September 18, 1924.



The actual direction of the Sun-Maid advertising in Denmark was in the hands of its own branch office in Copenhagen.

*Recent Developments<sup>4</sup>*

For the first time in six years, the California raisin industry appears to be free of a cumbersome carry-over of old stock as the new season opens. This fact places the industry in the soundest position since the close of the war. At that time, an unusually heavy export demand was providing an outlet for the rapidly increasing production in California. Curtailment of exports without a corresponding decline in the output of raisins or increase in domestic consumption loaded the market with heavy stocks.

These stocks were liquidated with difficulty in the face of continued heavy crops, in spite of the recovery of foreign demand to a point where exports overtopped the best wartime season. Shipments of large quantities of raisin grapes fresh for table use in recent years have helped to ease the situation, as has stimulation of domestic demand through low prices and the development of new products.

Just as the industry was beginning to work out of its difficult position, the success of the Australian government in securing for its own growers preferential tariff treatment in the United Kingdom and Canada threatened to cut down the accustomed share of the United States in its main export markets. A year of full preference in both countries, however, has failed to show the damaging results feared.

Following 1921, the increase in British purchases of raisins from Australia was steady and rapid. The United States recovered from the position into which it had fallen in that year but its share of British trade since then has been erratic.

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<sup>4</sup> From "Raisins and the Imperial Preference," *Commerce Monthly*, November, 1926.

## XXVII

### BANANAS

#### *The Fruit Itself*<sup>1</sup>

EACH plant developed to maturity from the rootstock bears but a single bunch of bananas, which is made up of so-called "hands," or clusters. These hands grow separately in spirals, each containing from 10 to 25 individual bananas, or "fingers." Commercially, bananas are classed as ranging from nine to six hands, any bunch having less than six hands not being readily marketable. The standard commercial-sized bunch has nine hands, all bunches with nine or more hands being classed as "nine-hand" fruit. A nine-hand bunch varies in weight according to the variety of the fruit and the soil and climatic conditions under which it is grown, the average weight ranging from 50 to 75 pounds. Occasionally a bunch of bananas is produced which has as many as 22 hands, with more than 300 individual bananas, weighing approximately 150 pounds, but this is extremely rare.

The heaviest and the best developed fruit comes from Panama and the lightest fruit from Cuba, the difference being entirely explained by the same differences in the agricultural conditions which similarly affect the size of the tree itself.

One will readily appreciate the necessity for infinite care in handling a bunch of bananas when he pauses to consider that this fruit, which is cut from the tree in a green state, is, until fully ripe, practically a living organism drawing sustenance from its stalk, with sap flowing and tissues changing; that it generates heat within itself in the ripening process; that a few degrees of temperature above or below normal may stimulate too rapid ripening on the one hand, or produce checked vitality and chill on the other; and that from the plantation to the ripening room it is shipped "loose," that is, without box, crate, or wrapping of any kind.

#### *Classes*

Bananas are divided into classes, based on the number of hands to each stem:

<sup>1</sup> From *The Story of the Banana*, compiled and edited by Philip K. Reynolds, assistant to the President of the United Fruit Company; Pan-American Union Bulletin, December, 1921.

1. "Nines" are bunches of bananas containing nine or more fully developed hands.
2. "Eights" are bunches of bananas containing eight fully developed hands.
3. "Sevens" are bunches of bananas containing seven fully developed hands.
4. "Sixes" are bunches of bananas containing six fully developed hands.

"Stems" is a general term applied to bananas regardless of class, and has exactly the same meaning as "bunches of bananas."

### *Harvesting the Banana*

The trunk of the banana plant, or tree, as it is commonly called, is nothing more than a leaf sheath. Three or four weeks after the rhizome has been planted, this leaf sheath appears above the ground, and in the course of about twelve months the plant will have reached a height of from 20 to 40 feet, depending upon climatic conditions. Usually by the tenth or eleventh month from the time of planting, the stem which is to bear the fruit has pushed itself up from the rhizome through the center of the leaf sheath, and the blossom has "shot," or appeared in the center of the crown of the leaf sheath. From three to five months are then required to develop a bunch of bananas ready for cutting, this fruition period varying considerably with the weather conditions.

After the first crop, some of the young shoots, or suckers, which spring up around the original plant from the same rootstock, are cut away, from two to five of the most promising being left to grow up and supply fruit later. This is termed "pruning." Thus, as the plantation comes into bearing, there are always young plants coming to maturity to replace those which have already borne fruit and have been cut down, so that after a time the production becomes practically continuous over a period of several years. Areas are known where, as a result of a single planting, the "trees" have continued in production for twenty years.

As fruit of various stages of development is coming on at the same time, a practiced eye is required to select the bunches of proper grade to be cut for shipment. Cutting of the fruit in a given section is done once, and frequently twice, a week. A cutting "gang" usually consists of three men: The "cutter," the "backer," and the "muleman." The "cutter" uses a long pole with a special knife attached to the end. He nicks the trunk of the tree a few feet below the bunch, and weight of

the bunch causes the trunk to weaken and bend where it has been cut. The top of the tree with its bunch of fruit is steadied by the pole to avoid its coming down with a rush and crushing the fruit. It is eased down until within reach of the "backer," who receives the bunch on his shoulders, and the "cutter" severs the bunch from the tree with a machete and cuts off the blossom end. The "backer" immediately carries the bunch on his shoulder to the nearest pack road or tram line, and the "cutter" then cuts down the tree itself near the ground, where it quickly rots, the decayed stalk forming humus which acts as a good fertilizer for the soil. The fruit is then carried out on pack animals or loaded on tramcars for transportation to the railway. In some instances, where the railway is very near, the bunch is "backed" right out to the track. In others, it is first "backed" a short distance, then packed on a mule and finally loaded on tramcars. The pack by animals as well as the haul by trams is of varying distance, depending on the location of the land with respect to the railway and tram facilities. A great many pack and tram animals are required on some farms, while on others small locomotives are used on the trams instead of animals, on account of the very long, heavy hauls.

#### *Transporting the Fruit to the Loading Port*

Upon arrival at the railroad, two methods are employed in loading the fruit on railway cars, depending on the quantity of fruit assembled at one point, the location, and the track facilities. Where possible, the trams are run to sidings or spurs of the main line, and the fruit is passed from the tramcars to the waiting railway cars as fast as it comes out from the farm. In other cases, the bunches are placed alongside of the track on platforms and covered with leaves, to be loaded subsequently on fruit trains by loading gangs who travel with them.

Definite loading orders are received in advance of the arrival of the steamship. In due course, cutting orders are transmitted to the district headquarters, based on the carrying capacity of the ship and on the estimated quantity of fruit of the required grade and quality ready for cutting in each district. District headquarters distributes orders for the required amount among the farms, and each farm overseer in turn makes his allotment to the individual sections and to the cutters, and sees that everything is in order to start the cutting at daylight the following day. Rigid inspection is enforced by the farm overseer, foreman, selectors, and traveling inspectors, from the time the cutting commences until the fruit is loaded on railway cars.



Special trains of empty banana cars are started out from the terminals as soon as cutting is well under way, each with its inspector and loading gang. These trains travel over the banana lines, receiving the fruit which has been placed alongside the track, picking up the cars loaded at sidings and assembling them at central points. As fast as sufficient loads are assembled they are forwarded to the port in trainloads of from 20 to 40 cars.

### *Loading the Banana Cargo*

The loading of the steamer begins immediately upon the arrival of the first fruit train at the port. The cutting orders and the schedule of the fruit trains are so arranged that a continuous flow of fruit to the loading port is insured. The loading of the steamship continues day and night without interruption until completed, cargoes of 75,000 bunches being loaded in 12 to 15 hours.

At all the principal banana loading ports, the cars of fruit are switched to the dock and the bananas carried to conveyors or loading machines, which take the bunches into the holds of the steamship. The fruit, on its way from the cars to these loading machines, is again inspected, and all damaged or defective bunches and bunches showing excessive fullness or the slightest yellow color are rejected on the wharf. Experienced gangs of laborers under direction of foremen receive the fruit in the holds of the steamship, where it is carefully stowed in the various compartments and bins. These bins are constructed of wooden bars, called "shifting boards," similar to the old farm gate, and prevent the fruit from rolling and becoming crushed. Each class of fruit, that is, the nine, eight, seven, and six hand bunches, is usually stowed separately, and stowage plans are prepared, showing the location and quantity of the different classes, to facilitate the proper discharge of the cargo upon arrival. The bunches are stowed on end, resting on the larger end, or butt, of the stalk, in from one to four tiers or with one or more tiers standing and one or two tiers laid horizontally thereon. The interstices between bunches, between hands and stalks and between the fingers, form natural channels for the circulation of air.

As the loading of each deck is completed, the delivery end of the conveyor is raised to the deck above. On completion of the loading of the top deck, the conveyor is removed, the hatches are put on, and, if the vessel is a refrigerator ship, the cooling of the cargo is begun. In the process of respiration bananas absorb oxygen and throw off carbon dioxide in large quantities, and the problem is to carry fruit well ven-

tilated within a narrow range of temperature. It is the rule to precool the holds of a refrigerator ship for a period of about 24 hours prior to loading, and when loaded to reduce in the briefest time possible the temperature of the fruit to the desired degree and to maintain it at that point.

### *The Banana Steamship*

To transport bananas with any degree of success, specially designed steamships are necessary. Both refrigerator and naturally ventilated vessels are used in this trade, particular attention being given to the feature of ventilation and air circulation.

The holds of a modern banana carrying steamer are divided by several decks, which in turn are subdivided by vertical partitions into a number of compartments of a convenient size, the entire vessel being heavily insulated to prevent the transmission of heat. The fruit is cooled to the required temperature by refrigerating apparatus. The air is passed over brine coils, which cool and dry it, and is then circulated by fans through the fruit holds. Most people will be surprised to know that the refrigerating machinery used is much more powerful than is required for a steamer of similar capacity carrying frozen meat, although banana cargoes are carried at a much higher temperature. In the case of the bananas, the refrigerating apparatus must contend with the heat generated by the respiration of the fruit itself.

Naturally ventilated ships, which are generally used on the shorter runs, are equipped with large ventilators placed at convenient points to supply fresh air and draw out the stale air.

During the entire voyage, the fruit is carefully inspected at regular intervals every few hours, day and night, and the temperatures of the fruit holds closely observed and recorded. In the winter season, while the ship is approaching the Northern Atlantic ports, it is sometimes necessary to use artificial heat in maintaining the desired temperature of the fruit.

The voyage from the various banana shipping ports of Central America and Jamica to New Orleans, Mobile, or Galveston consumes from three to a little over five days; and to Boston, New York, Philadelphia, or Baltimore, about seven or eight days, according to the distance, route, and the speed of the vessel, while the voyage to England consumes about fourteen days. On account of the longer ocean voyage the bananas shipped to English market are of a thinner grade, that is, less fully developed, than the fruit sent to the United States.

Bananas are inspected and weighed at the seaboard by men specially appointed or licensed to do this work. The inspection is very rigid, and any fruit showing the slightest evidence of damage or a degree of maturity which forecasts early ripening is rejected for interior shipment and sold locally.

*Banana Shipments by Rail to Interior Points*

After having been thoroughly inspected and equipped before being placed for loading, the cars are weighed empty, and when loaded are again weighed. These cars are then made up into trains, which are dispatched over the various roads on fast schedules. Caretakers, called banana messengers, travel through with the trains, inspecting, taking temperatures, and arranging the ventilating devices in transit; or resident messengers, who perform the same service, meet these trains at regular intervals in order to inspect the fruit and arrange the ventilation. The shipper's office at seaboard and consignees are kept in close touch with the banana cars through telegraphic advices from messengers en route and resident messengers and superintendents of fruit houses, and through this service many losses incident to transportation are avoided.

The fruit is carried into widespread territory in refrigerator cars which, in most cases, are equipped with false floors, or floor racks, providing an air space of four to six inches in depth under the load.

In the winter season, the banana cars are papered and more or less heavily strawed, according to the weather conditions, so that the tiers of firmly stowed bunches may be well fortified against the northern cold. At seaboard points during the winter months, the cars are given an initial heating before they are loaded. At eastern seaboard points the cars are again heated after being loaded and before the cars are started on their way. For winter emergencies, great fruit houses equipped with heating plants are placed at convenient points, the largest, located in southern Illinois, handling 72 cars at one time. If unusually cold weather prevails and produces lower temperatures in the cars than desired, they can thus be heated on the way to destination and the fruit warmed to the required degree. For the further protection of some of the shipments destined for the northern part of the United States and Canada, car heater stoves are provided by the railroad companies at convenient points. With these stoves the required temperature can be maintained during extremely cold weather and in emergency when trains are snowbound or otherwise delayed.



The distribution of bananas throughout the United States is, generally speaking, as follows: The fruit imported through the Gulf ports is distributed all over the Southeast, south of the Ohio and Potomac rivers, the Central West, and through the great territory lying west of the Mississippi River, including western Canada, while the fruit imported through the Atlantic ports is distributed mainly in the eastern states, north of the Ohio and Potomac as far west as Columbus, Cleveland, and Detroit, the New England states, and eastern Canada.

### *Selling the Banana*

The larger portion of the bananas imported is marketed through sales branches, located in all the important centers of the United States and Canada, which solicit and receive orders for the fruit from the jobbing trade in their territory. These orders are telegraphed or telephoned by the branches to headquarters at the seaboard for acceptance and are usually received before the cargo of bananas is discharged, although orders are taken at times for cars which have already been shipped from the seaboard. A large portion of the fruit arriving at Atlantic ports is sold locally by auction in truck lots. Bananas are sold to the jobbing trade on the weight basis, and many retailers have now adopted the practice of selling by weight instead of by quantity.

### *Handling by the Jobber*

The successful banana jobber is on the lookout for his shipments, unloads them quickly, and devotes great care to the physical handling of the fruit in order to avoid scarring and bruising. When the railroad car is unloaded at a distance from the banana rooms, the wagons or trucks which are used for transporting the fruit are provided with straw or hay. In case the car is placed at the jobber's unloading platform, an overhead track with trolley hooks is frequently used to convey the bunches separately to the banana rooms.

In winter, protection is given against chilling by thoroughly strawing the wagons in which bananas are transported and by covering each load with blankets or tarpaulins. In most of the northern territory, vans, somewhat resembling those used for carrying furniture, heated with small stoves, are used for unloading, and stoves are often placed in the cars. When the car is placed at the jobber's unloading platform, canvas windshields are employed to protect the fruit while moving from the car door to the interior of the building.

A part of the jobber's distribution is represented in the shipment of single bunches of bananas by freight or express, and special crates of



various sizes and designs are manufactured and used for this purpose. The returnable crate is constructed of oak slats, with a burlap bag suspended within and so tied to the structure that the bunch cannot be bruised by contact with the outer frame. The nonreturnable crate is made of light slats in which the bunch of bananas, placed in a paper bag manufactured for the purpose, is packed with hay or straw. The jobbers handling the smaller classes of fruit frequently use cylindrical cardboard drums strengthened with wooden bottoms and hoops.

### *Banana Rooms*

The care and ripening of the green fruit in the banana rooms of the jobber form an important link in the long chain of operations extending from the plantation to the retail distribution, and the present advanced type of banana room has been designed to simplify handling and to place the banana on the market as a matured product at its highest intrinsic value.

The bunches are hung systematically in the banana rooms from ceiling hooks with proper spacing to permit the requisite air circulation and with a view to convenience in handling.

As ripening is recognized as a vital phenomenon resulting from changes taking place within the cells of the fruit, it is necessary to have normal, wholesome conditions in the banana room. Provision is made for fresh air circulation and for the maintenance of the required degrees of humidity and temperature. The room is well insulated and fitted with special heating and refrigerating apparatus, in order to maintain an even temperature against exterior weather conditions. The heating appliance is so designed that the products of combustion are conveyed to the exterior. A gravity system of ventilation constantly supplies fresh air and removes the vitiated air resulting from respiration of the bananas, which increases rapidly during the ripening period.

Bananas treated in a room of this description not only develop the color, firmness, flavor, and food value requisite in the matured product of highest quality, but the losses which ordinarily occur through shrinkage by evaporation and through overripening and decay are minimized.

### *Handling by the Retailer*

The retailer's approved practice is to hang the bunches of bananas where they will be readily seen, but subject to as even a temperature as possible and to a circulation of fresh air. In winter, due care is taken to protect the fruit from draughts of cold air, and the bunches

are covered with paper bags or wrappings in case the temperature is low at night.

### *Advertising Bananas<sup>2</sup>*

(1) The Fruit Dispatch Company is the sales adjunct of the United Fruit Company. The United Fruit Company has done everything for the banana except to advertise it. It has often been suggested that the banana be advertised. It is likely, however, that the company deemed it unnecessary to advertise. Perhaps the principal reason for the present advertising campaign is that the consumption of bananas is not increasing so rapidly as their production. As is the case in the pioneering stage of all industries, production was for many years the problem in the banana business. Not only was there the task of maintaining an adequate supply, but the further difficulties of transportation, sanitary control, and of bringing an unpreserved food product thousands of miles from the tropics to the grocery stores of the United States.

Happily, these questions have long since been solved. Within reasonable limitations, the Fruit Dispatch Company is certain of being able to get all the bananas that it can sell. With no restrictions on its supply, the company is able to go ahead and develop its markets as it was not in position to develop them during the early days of the industry.

The keenest competition today is not between the houses in the same industry, but between industries that are offering rival products. The United Fruit Company's hardest competition is with the growers of citrus fruits and not with other banana companies.

For several years there has been a lot of talk about the indigestibility and unhealthfulness of the banana. In its advertising campaign the Fruit Dispatch Company wisely recognizes the need for educating its market as to when bananas are ripe enough to be eaten. All the advertisements so far are in colors. The illustrations show deliciously ripe bananas.

The second objective of the campaign is to increase the market for bananas. This is being accomplished through a method that is commonly followed in cases of this kind—by creating new uses.

The Fruit Dispatch Company has 49 branches in the United States and Canada. It is through these branches that the jobbers are sold. The company's selling work with the retailer is carried on entirely through jobbers.

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<sup>2</sup> (1) *Sales Management*, June 12, 1926; (2) *Advertising and Selling Fortnightly*, December 16, 1925.

(2) The campaign is being handled in the cooperative manner by three large concerns which deal in the same commodity; in this case the perennial banana. There is nothing new in the advertising of fresh fruit, either by individuals or cooperative groups, but so far as we can ascertain this is the first time the banana has ever entered the advertising field; that is, on a scale such as to attract any widespread attention.

In the first place, bananas cannot be branded or trade-marked in any way. The lack of merchandising proclivities on the part of the dealers is rather obviated by the fact that bananas need very little merchandising. The American public has long been "banana conscious and banana loving." All that this campaign really does is to serve as a constant reminder.

The campaign is scheduled to run for a total of 50 weeks. The expense is being prorated among the Fruit Dispatch Company, the Standard Fruit and Steamship Company, and the Cuyamel Fruit Company, all of New Orleans, which, it might be said here, is the largest banana port in the world. It would be premature at this stage to predict the success or failure of the campaign, or even to define exactly what would constitute success or failure in this particular case. But even from the early indications it appears that not only is the dealer awake and eager to cooperate, but that the public is showing a decided interest in the story of the banana. At last, this fruit seems to be assuming the positive rather than the negative appeal.





INTRODUCTORY READINGS  
IN MARKETING

SECTION III

PRODUCTS OF FOREST AND MINE



## XXVIII

### COAL<sup>1</sup>

#### *Sales Department*

COMPANY selling departments are handicapped in their work, as compared with coal brokers, because of the limited grades of coals they have to offer the prospective buyer.

On the other hand, a company-operated sales department has some very distinct advantages to the operator over any other method of marketing his coal. There is, first, the very important consideration that the department will keep the operating end in close touch with market conditions and enable it to work the mines to the best advantage. The company also has complete control over prices and can rely on the effort of the sales department being concentrated on its product to the exclusion of any other interests. Where a special grade of coal is being produced, a sales department is also better equipped to capitalize any advertising value there may be in it.

#### *Agents and Brokers*

Where the product of a mine is handled through a sales agent, he acts in an intermediary capacity only, having no financial interest other than his commission and assuming no obligations as to credits, collections, and the like, though it has become the custom for the agent to take care of these matters for the producer. The producer retains full control of the sales policy and is assured of his interests being in the hands of an expert who is in intimate contact with market conditions and has a wide clientele. He cannot, however, build up business good will and prestige, since he does not come in contact with the consumers of his product, and he is almost compelled to relinquish control of the price he will accept for his coal, within certain limits.

Coal brokers fall into two general classes, those whose business is confined to purely paper transactions and those who operate coal handling and storage plants. These latter are confined principally to dealers in anthracite coal and are limited as to numbers. The coal broker dif-

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<sup>1</sup> From A. T. Shurick, *The Coal Industry*, Boston, Little, Brown and Company, 1924.

fers from the sales agent in that he purchases the coal directly from the producer and resells it to the consumer, assuming all risks of collections, credits, losses in transportation, and the like. He too is an expert on marketing coal within the range of his activities, where he is in close touch with transportation methods and rules, consumption requirements, and so forth. The broker extends credits both to his customers and to the producer, not infrequently being an important factor in financing the operations of the latter. During periods of scarcity in the market, the brokers are often able to turn their product over at unreasonable profits and have thus become a favorite target for governmental investigations. Brokers sometimes also get into the retail business of distributing coal to the householder.

The investigations of the United States Coal Commission disclosed the fact that 24% of the domestic sizes of anthracite coal is sold directly from the mine to the consumer or retailer, 53% is marketed through sales agents, and 20% through wholesalers. The wholesaler in this case is usually bound by the terms of his agreement with the producer to take also a certain percentage of steam sizes along with the domestic grades, the former being difficult to move in a dull market because of the close competition with the bituminous coals.

The commission was openly critical of the wholesale trade, declaring that there was unnecessary duplication of service with too many handlers between the mine and the retailer. The reason for this is ascribed to the high profits made with comparatively small investments. In the past decade these rates have frequently been as high as 40% or more per annum on the invested capital. The profits have been generally such that the returns have equaled the investment every two to eight years. The essential function which the wholesaler and broker perform in the industry is admitted, the objectionable features being the excessive number engaged in the business and their wildly speculative propensities in times of a short market. The commission expressed the opinion that the government should have immediately available a skeleton organization for regulating the trade when such markets develop, in order to keep the margin of profit within reasonable limits. This organization would not be required to function in normal markets, since the competitive character of the business is ordinarily sufficient to assure an equitable price level.

### *Retail Dealers*

The retailer is the last connecting link by which the coal finally



arrives in the bins of the householder and also to many of the smaller manufacturing and industrial consumers without rail connections. The United States Fuel Administration estimated that there are 38,000 coal dealers in the country who are engaged exclusively in handling coal and that there are 55 million tons of anthracite and 75 million tons of bituminous coal handled through this medium annually.

The retailers seldom contract for the coal and do most of their buying direct from the mines, although they also use the other sources of supply previously mentioned. In the case of anthracite, the supply is so limited that the operators have been able to assume a very independent attitude in the distribution of this and have generally adopted the policy of "allotting" tonnages to dealers who have been their customers for some time.

The retailers' chief customer is, of course, the householder. The United States Fuel Administration compiled some statistics on this phase of the industry and found that 75% of the dealers' business was with this class, although it is to be noted that this includes hotels, schools, stores, churches, theaters, and the like.

Dealers suffer losses in their business from depreciation in the coal when handling it from the railroad car into storage and out again for delivery to the consumer. He also stands losses in transportation from the mine, due to stealing and discrepancies in weights or due to drying of coal en route, and has to work out settlements for inferior quality with his customers.

As a rule, the dealer extends credit to his customer, but this rests largely on the class of trade he caters to; a dealer in a wealthy suburban district would naturally be more flexible in the matter of credits than one dealing with the more or less migratory population of the poorer sections. Probably 20% of the dealers have no credit policy of any kind, and about half as many maintain a mixed policy in this respect.

The retailer follows the producer in the matter of prices and is therefore obliged to sustain all the complaints from the public incident to high prices in times of shortages.

Purchases of the retailer are usually made f.o.b. mines, per net or short ton (2,000 pounds), except for anthracite coal, which is sold entirely on a long ton (2,240 pounds) basis at the mines. The retailer sells his product to the consumer on a short-ton basis everywhere, except in Pennsylvania and a very few of the cities contiguous thereto, where the long-ton basis is used.

The retailer may have anywhere from a dozen up to a good many thousand customers, taking from one to a thousand tons per annum, all depending on the size of the business and importance of the trade. The typical dealer in household trade would probably have around 500 customers on his list each taking an average of 20 tons per annum. Nearly all retailers deliver the coal to their customers and the motor truck has come into general use for this purpose. As a rule, the dealer operates his own motor equipment, supplementing this with hired equipment in times of active demand, though some dealers contract all their hauling. The cost of delivering to the consumer is nearly always included in the price quoted, except where there are some special conditions, such as an unusually long haul, necessity for carrying the coal in, a very small order, or the like.

The northwestern territory has developed a distinctive type of dealer operating on the chain store principle. There are some 20 or 30 comparatively large companies operating in this manner throughout that territory and they handle perhaps half of the retail trade. They have strong financial resources, concentrated and efficient management, and make it very difficult for the independent dealer to compete with them. One of the largest of these is the Weyerhaeuser lumber combine, which is reported to be operating between 400 and 500 yards of this kind.

### *Selling Practices and Customs*

Coal exchanges have been an accepted part of the coal business abroad for a number of years, but for some unexplainable reason they have never been adopted in this country, though an effort is now being made to establish one. As a result of this condition, negotiations for coal are conducted through roundabout channels and usually shrouded in some mystery, except in those cases where municipal or government laws require that the business be made competitive by advertising for bids.

The broker and sales agent conducts his business on a purely commission basis and at figures varying over a wide range. The percentages vary from 1% to 20% on contracts and 25% on spot coal, with an average of around 8%. On a cost per ton basis, the fees vary from 2 to 60 cents a ton, with an average of perhaps 20 cents.

The broker purchases from as many sources as possible in order both to provide a wide variety of coals to meet all the various demands of the market and to have a large tonnage as well. There are some brokers who may have as many as 200 sources of supply, but the average is probably between 10 and 20. Some care is exercised in the

selection of these, in order to obtain as well balanced a variety as possible.

There has been a marked trend towards a community of interest in a financial way between the producer and the broker in recent years, the latter frequently assisting the former in this way. This assistance takes the form of advances to meet the pay rolls at the mine against future shipments and even sometimes to acquire, develop, or lease additional properties. Occasionally the obligation is extended from the other direction, the operator carrying the broker pending the receipt of collections on coal he has shipped.

The reconsigning of coal has been the cause of a great deal of trouble in trade circles, not from anything inherently wrong in it, but because of the abuses that have been made of the practice. Irresponsible brokers have used it to have coal sent to them without a definite sale, and it has been frequently used to divert coal moving on regular contracts into other channels. Some brokers have even used it as a means of storage for coal, pending the discovery of a buyer. The practice has been reduced by additional charges on the part of the railroads, and some brokers think that it should be dispensed with entirely, though there are others using it with moderation and to the advantage of all concerned. It certainly tends to facilitate distributing coal and should not be discontinued if some method of exercising control over it can be devised.

The export and bunkering trade in this country has developed some very specialized selling practices and customs. All shippers to tide-water destinations participate in this to a greater or less extent, but it is largely in the hands of some of the more important companies that make special efforts to obtain it.

Bunker sales are made on both f.o.b. and f.a.s. (free alongside) bases. Customs as to charging for lighterage, trimming, and so forth, vary, and quotations are made covering all, part, or none of this service, as conditions may dictate. The larger companies, having their own lighters, usually include this in their price; the lighters are frequently serviceable for storage purposes when a vessel has been unexpectedly detained and the shipper finds a congestion at the piers. Sales may be made to the captain of the vessel or to officials of the company operating it.

Most of the export business passes over the Hampton Roads piers, with coal originating in the Pocahontas and New River fields, though a very considerable tonnage is also shipped through Baltimore and



Philadelphia. Some of the vessels in this trade take a very large tonnage, and considerable preparation is necessary when a vessel is due for loading in order to avoid delays that will involve demurrage charges. Coal is "started rolling down to tidewater" (as it is commonly termed in the trade) in ample time to be ready for the vessel when it arrives, and the cautious shipper will also have some extra tonnage in sight to take care of any miscalculation in the estimates of the amount required; incidentally, he will also be prepared to place any surplus that may be left over when the vessel is loaded.

#### *Distribution on Contracts*

All coal is sold either on contracts or in the "spot" market, much the same as in other lines of industry. Contracts are made by the producer with the broker, sales agent, and the consumer; brokers and sales agents also make contracts with the consumer. The advantages of contracting are participated in by both parties to the agreement. The consumer is assured of a definite price for his fuel supply and is able to compute his manufacturing costs sufficiently close to justify entering into contracts for the output of his factory, thus completing the circle and stabilizing the business of all concerned. The producer is equally benefited in being able to lay out definite working schedules at the mines and in being relieved of the expense and trouble of finding a market for his product.

As a rule, producers endeavor to cover not less than half their potential output with contracts, but some contract for the entire mine output and other for as little as 5%.

Coal contracts differ from other contractual agreements through a certain flexibility made necessary by conditions arising which are beyond the control of the operator, such as strikes, inadequate car supply, and the like.

Coal contracts usually provide for maximum and minimum shipments, and some even for requirements; in times of a depressed market, with prices below average contract figures, the consumer is sometimes in a position to pick up low-priced "distress" coal (shipments threatened with demurrage charges) at considerably under his contract price.

These are the reasons that more of the coal business is not conducted on contracts. This has become more accentuated in the past several years, because this has been a period of violent fluctuations in the market conditions, creating strong temptations for practices such



as outlined above. Uncertainties of other kinds, such as wage scales and the like, have resulted in unstable conditions and made it difficult for buyer and seller to fix upon prices. Consumers have shown a decided tendency to buy in the spot market, and we have to go back to 1917 for a strictly normal year in the contract business.

Contracts of the brokers and sales agents with their customers are almost invariably made for the twelve months. Producer to consumer contracts, however, are negotiated for varying periods, though most of these are usually for the year also. F. S. Peabody stated that he had made a contract with the Commonwealth Edison Company to furnish them with 500,000 tons per annum over a period of 20 years.

An inefficient and burdensome problem with the railroads is the excessive amount of switching service required because of the large number of very small mines. The average number of cars loaded per day each at all coal mines in the country amounts to only 4; it is apparent that with but little more effort from 20 to 40 cars could be placed on the mine switch.

The most difficult problem the coal industry has to contend with lies in absorbing the losses occasioned by the summer dullness. The former could probably be handled if the railroads were able to furnish adequate cars for loading, but as it is now, the mines sustain lost time from this cause in the winter, and in the summer they are shut down for lack of orders.

### *The Anthracite Market*

The Pennsylvania anthracite coals have a wider distribution than any other grade of coal in the country, though, as would be expected, the bulk of it is consumed in the East near the point of origin. A considerable volume finds its way into the Northwest by means of the cheap water transportation up the Great Lakes and has a wide distribution throughout that territory. Excessive freight costs limit its use in the Middle West to a certain extent, and this increases as we proceed farther West, until the price reaches a point that places it in the luxury class.

Anthracite coals are produced in both steam and domestic sizes, the latter including pea coal and all the larger purposes. The marketing of these two classes of coal are entirely distinct problems, the domestic grades moving practically of their own volition, while the steam sizes enter into competition with the different bituminous coals and require aggressive selling methods to dispose of them. The demand for the

domestic sizes has outgrown the supply of these, and since public sentiment would not permit the operators to advance prices sufficiently to restrict the consumption to the productive capacity of the mines, they have adopted the policy of allotting tonnages to their regular customers.

## XXIX

### IRON AND STEEL

#### *The Location and General Features of the Market<sup>1</sup>*

THERE are but few local markets for iron ore. Duluth has two blast furnaces, an open-hearth plant, and several rolling mills. These blast furnaces consume about half a million tons of ore annually. A steel plant at Sault Ste. Marie, with three furnaces taking about 600,000 tons, is practically the only other local market for Lake Superior ore. The Birmingham, Alabama, district has a larger local market, about forty furnaces using the ore mined in the district.

Of primary markets, there are some seven or eight. In Minnesota two should be recognized, Two Harbors and Duluth. Wisconsin has Superior and Ashland on Lake Superior, and Menominee on Green Bay. Michigan boasts the remaining important markets of this class—Marquette, Gladstone, and Escanaba. Lake Superior ore fields supply about 85% of the ore used in the United States, and the above ports ship practically all of it.

The terminal markets are divisible into two groups, those that receive the ore from primary markets and transship to manufacturing centers, and those in which the ore is converted without further ado. Among those of the first sort may be mentioned Cleveland, Ashtabula, Conneaut, and Erie; while the leaders of the second group are Milwaukee, the Calumet region (composing Chicago, South Chicago, Indiana Harbor, and Gary), Detroit, Lorain, Cleveland, and Buffalo. To the latter may be added Harrisburg and Baltimore, whose mills receive Cuban ore and convert it, but their activities are of little importance to the trade as a whole. The transshipment cities receive ore from the Lake Superior region by boat and send it on by rail to Pittsburgh, Steelton, Youngstown, Steubenville, and Johnstown.

It is difficult to designate any particular cities as local markets for iron and steel products, not only because there are as many markets as there are communities, because of the universal demand for iron, but also because this is a manufactured article, and therefore perhaps

<sup>1</sup>From "The Marketing of Iron and Steel" an unpublished paper by P. R. Anderson and H. A. Blankenship, University of Chicago, December, 1916.

not susceptible to the same classification as to markets as is a raw product. Chicago may be said to be large local market, as may also Cleveland, Pittsburgh, and Buffalo. These are all fairly large producing regions. There are scattered over the United States hundreds of small rolling mills—most of them puddling mills—which take care of much of the local demand.

Such cities as Chicago may also represent primary markets. A plant such as Ryerson or Scully purchases steel forms from Chicago, Pittsburgh, Steubenville, and perhaps a number of other places, cuts them into the right lengths, and ships them over the United States. The Ryerson company has branches in a number of cities where such work is done. That such primary market service is needed comes about after this fashion: The Wisconsin Steel Company makes only Bessemer steel, the Inland Steel Company makes only open-hearth and special plates, and so on. The Ryerson Company and other such jobbing concerns will purchase from several companies, collect and redistribute the material, selling perhaps a dozen kinds of steel in one shipment.

Practically every large city is a terminal market. They all get steel from several plants and use it for home or immediate vicinity consumption. Vancouver, San Francisco, New Orleans, and New York are examples. The United States Steel Corporation maintains warehouses at these and a number of other such points.

The subject of competition in steel and iron presents an interesting situation. While it seems on the surface as if price competition were practically *nil*, it is stoutly maintained by many that such competition is quite keen. As a rule, steel prices are quite uniform, the prices of the different producers keeping at about the same level, so far as can be found from open market news. This matter engaged the attention of investigators in the Steel Corporation dissolution suit. It appeared from the hearings that for a while (1907 to 1911) a series of events known as "Gary dinners" were held, at which 95% of the great steel manufacturers were represented. It was charged, perhaps justly, that the representatives entered into some sort of price agreements, but this fact could not be shown.

The sales agent of the Lackawanna Steel Company stated on the stand that it is a matter of pride with a steel manufacturer to be able to sell his product at as high a price as his competitor. This, of course, tends toward a uniform price. What the United States Steel Corpora-



tion receives is not a matter of speculation, since its prices are published in the *Iron Trade Review* for the week following.

Much evidence, on the other hand, tended to show a condition of lively competition. The sales manager of the La Belle Iron Works testified that at no time has there been an agreement to fix prices. The president of a tank manufacturing company stated that he had found the difference in price on his raw material to run from \$1.10 to \$1.50 per ton. The head of a large hardware jobbing concern said that he found competition in plates and sheets to such an extent that the prices made by different companies would vary as high as \$3.00 a ton. And the manager of a factory using all sorts of metal products testified that the competition in steel products is greater than that in copper.

This case also brought forth the assertion that there is competition in quality. It was even stated that the quality of the Steel Corporation's product has been one of the principal means by which it has acquired and held its business. Jobbing concerns such as Ryerson make an especial effort to gain trade by service. The firm named advertised on its catalogues a one-day factory service.

Competition between market areas is not nearly so keen as that within the markets. Indeed, it may almost be said that intermarket competition is negligible. "The market reach of basic iron and steel plants is restricted to its own district by freight limitations." The basic articles are of such bulk and weight that their markets are materially restricted. There are times, however, when the boundaries are to quite an extent swept aside. At the present time [1916] the Illinois Steel Company is sending rails to the Far West because the rail mill of the Pueblo mill cannot supply the market. The Chicago mills are at the present moment making steel for export also. This trade usually belongs to the two eastern districts, but these mills are choked with orders.

Such conditions, it must be noted, are the result of extraordinary demands. As a rule, the districts are well defined. The Pennsylvania Steel Company, the Bethlehem Steel Company, and the Maryland Steel Company have the advantage in coastal trade because of their proximity to tidewater. These mills can ship by water at a rate of \$2.50 per ton to the cities on the Gulf Coast. They can even outsell the Alabama mills along the Gulf, because the Alabama rate is \$3.40 by rail. Freight rates from Pittsburgh to the Pacific Coast by rail are 73 cents per hundred pounds; by rail to the Atlantic Coast and then by water to the Pacific costs 61.9 cents. The rate from Atlantic Coast

points, however, is but 45 cents. This explains why the Pacific region belongs to the eastern mills.

It is difficult to tie the consumer market directly to the market centers because of the trade custom of selling to anybody direct from the mills so long as the order is large enough to make it worth while to bother with. Middlemen are not needed for large orders, and the producing region is the marketing point. Middlemen have sprung up to care for the trade in small lots. But even here they are not supreme. In the basic trade some of the manufacturers are endeavoring to hold the entire trade to themselves. The Youngstown Sheet and Tube Company advertises that it sends its product over the whole of the United States and Canada. As a rule, however, the market center for even small finished materials tends to be near the producing region, for it is relatively costly to ship any but the most highly fabricated forms of iron and steel.

Before the character of the iron and steel market can be properly understood, it must be noted that there are a number of peculiarities in this industry. In the first place, the consumption and the production figures follow each other closely. The industry is essentially a hand-to-mouth one, in which orders are made up as they are received and no appreciable amount of the finished product is kept on hand. As a rule, there are in the stocks of the country only enough pigs to supply the demand for a very few days. Indeed, "the average stock of pig iron carried in the United States during the last 25 years was less than 23 days' product."

Again, iron and steel, so far as demand goes, are one and the same thing. When production from the ore begins, it is usually but a short time until the steel appears in its finished forms. Especially is this true of the rails, building steel, and such bulky items, which constitute the bigger part of the entire consumption.

The market for iron and steel is world-wide. The character of the area in which different iron products are used is of many sorts, however. Pig iron is of use only at the furnace and mill centers; armor plate can be used only in government work; structural steel (that is, building steel) is used almost exclusively in cities; agricultural machinery is, of course, for the farming districts.

#### *Character of the Trade Organization*

The peculiarity of the iron industry to manufacture largely on order, coupled with the present large-scale production system, has resulted in

a relatively simple marketing organization. Only in those classes of goods which are standardized as to chemical composition, use, and size, and are of relatively small unit bulk, do middlemen find a foothold.

Different systems of distributing the goods from the original manufacturer to the consumer have grown up to care for the different sorts of demand, that for pig iron, that for plates and other heavy materials, and that for small orders and small articles commonly called hardware.

Pig iron is made for two purposes, for conversion into steel, and for use in foundries. Almost the entire output is made to be worked up into steel. And practically all of it is made by furnaces subsidiary to steel companies, so that but a negligible quantity ever goes on the market. In foundry iron, however, there is a place for middlemen. This iron is used by a great many small foundries scattered over the country. While most of them buy direct from the blast furnace, there is a place for a commission man. He merely takes orders and places them with his furnace, receiving a commission for his services. Usually he is located in a large city and many times he advertises the iron he sells. Since there are definite standards for iron compositions, such advertising amounts to merely endeavoring to get in touch with the consumer, not disseminating ideas about the goods.

The speculator enters the pig iron market to some extent by means of "warranties," so-called. An outright purchase is made of iron actually manufactured and standing in the furnace yard and a certificate, or warrant, is given by the furnace that the metal has been sold and is held at the furnace. The broker who buys this iron pays a small storage rent for keeping it in the furnace yard until he is able to sell the warrant. There is not a great deal of this sort of business done, however. The furnaces dislike to sell their product to a broker if they can finance their business without it, as they have had a number of sad experiences growing out of such transactions. Several times when the market was on the rise, they have had to compete in the market with their own product lying in their yards, sold on warrant when the ruling prices were lower.

It is almost impossible for a middleman to intervene in the carrying on of a vast majority of the transactions in heavy steel. The market is a hand-to-mouth one, as explained in a previous paragraph, structural shapes, rails, and other articles necessary for engineering projects being ordered only when plans have been formulated for the construction of some particular piece of work. The intense integra-



tion of the business makes it even more difficult for a middleman to find a place here.

Steel may be manufactured in thousands of different forms, each differing from the others in chemical composition, shape, or size. For each piece of work only one certain chemical composition is the right one, only one sort of shapes can be used, only the specified sizes will fit together to make the completed work. It is therefore impossible to anticipate the market, and middlemen are by nature of the product barred from the transaction. Since there is no way of anticipating the probable demand, no man can afford to tie up capital in steel for general construction work. Moreover, the steel companies themselves solicit this business. They accept orders down to a very few tons; so that few crumbs fall to the commission men.

There is one chance of speculation in this part of the trade, however. When the original contract is made, it is usually merely an option on a certain quantity of steel of certain chemical composition, to be delivered at the rate of a specified number of tons a month. Later, as the time approaches for delivery, specifications as to the exact sizes and shapes of the metal are furnished; and when this is done, the contract becomes binding on the purchaser.

If at any time before it becomes necessary to send in the final specifications the price falls, the prospective purchaser may forfeit his option; if it rises, he will hold the mill to the price named in the option. Brokers sometimes take advantage of this situation by taking options and later peddling them out to actual steel users. They have an excellent opportunity to gain in this way, as steel is financed by the mills until it is delivered to the consignee, in the case of supposed direct sales. There is little or no money required as deposit on the option, so that speculators have everything to gain, nothing to lose, by an option.

There is no separate set of middlemen to carry on this practice. When a contract is made, it can almost invariably be assumed that it is between the steel mill and the ultimate consumer. So, as a rule, options lead to sharp business practices rather than to the intervention of a middleman. Since the recent congestion of the mills due to the European war orders, the mills have adopted the practice of insisting on binding contracts and are refusing to give options as heretofore. It is expected that an attempt will be made to continue the scheme after conditions become normal again. If this is done, there will be absolutely no hope of gain left in options, for the risk of



finding an actual purchaser of the contract will be saddled on the middlemen irrevocably, and will be too great for the returns.

The larger part of the bulky steel that is sold by middlemen passes through the hands of a "warehouse" concern. Such companies carry stocks of various shapes of the more common varieties of steel, sheets, bars, angles, and so on. They purchase direct from the mill and sell to the consumer. Their functions are principally those of time-saving and small-lot repacking. If a user of steel needs material in a hurry, or if he needs but a very small amount, he orders from a warehouse and the steel is cut to size and delivered without delay.

In the handling of small steel articles is found the only group of middlemen that regularly handle any large part of the trade. Here the manufacturer secures his steel from the mill, makes his finished product, and sells it to a group of brokers, who in turn pass it on to a larger group of retailers. The latter sell to the consumer. The manufacturer here finances his product only until it passes into the hands of the broker. The broker purchases outright and assumes the risk of selling the smaller lots to the retailer. The latter keeps the goods until they are needed and passes them out in small units to the ultimate consumer.

### *Transportation*

Transportation has always been a problem of great magnitude in the iron and steel-making industry. The fact that three sorts of materials, widely separated in the native state, must be brought together, and that all of them are heavy, bulky, and of low value, makes a rather complicated situation.

The location of the industry was long determined by balancing the transportation difficulties involved in placing all three ingredients—ore, coke, and limestone—on the same site. It was found early in the history of the industry that the ore and the flux could be transported more advantageously than the fuel; hence the remark of J. R. Smith that "fuel has been the dynamo that moved the iron industry."

The characteristic movement of ore is rail-lake-rail—from the mine to the lake, then by boat to the lower lake ports, and finally by rail to the mills. The modern tendency, however, is to locate new furnaces on the lake front and to move old plants to the lake.

Most of the finished product is shipped from the mills to the consumer by rail. This holds for both pig iron and steel. The exceptions are three. (1) Until very recently, a large part of the structural steel

destined for use in the Northwest was sent from Buffalo by lake to one of the upper lake ports and by rail from there to the consumers. Since the opening of the United States Steel Corporation's new plant at Duluth, this movement has practically ceased. (2) The tidewater plants ship by ocean to Galveston or New Orleans and by rail from there to California. (3) Some steel moves by the all-water route from tidewater plants to Pacific Coast points.

There is some use of express for the shipment of highly fabricated articles of steel, principally of light-weight parts for special machinery, but practically the entire movement from the mills to warehousemen or to consumers is by freight.

### *The Absence of Organized Exchange*

Certain qualities are necessary to a commodity before it can go to a concentrated market for sale:

1. The commodity must be capable of being preserved;
2. It must be graded and standardized;
3. It must be homogeneous;
4. It must exist in considerable quantity;
5. It must have a world market;
6. It must fluctuate in price;
7. It should come from many sources;
8. These sources should be relatively unimportant in themselves, and assume importance only when considered in the aggregate with other sources;
9. Finally, the commodity should be produced with great dependence on natural conditions and be of such character that it can be used by a multitude of consumers in a common form.

Applying these tests to the steel industry, we find that the commodity can be preserved with little trouble. It is far superior to wheat, cotton, and coffee in this respect. Evidently, then, it is not this test which interferes with the formation of steel exchanges. Iron and steel are graded much more definitely than the ordinary exchange commodities, but in the iron and steel industry there are hundreds, even thousands, of grades and products, while in the marketing of wheat there are less than a dozen grades to observe. This is, of course, an impediment to the trading of the commodity on exchange.

The sources of production are not sufficiently numerous. Wheat is raised by thousands of different producers. But the situation is quite different with iron. This commodity comes from 176 sources, and these are not independent, since one company often controls many

sources. It is probably a conservative estimate to say that 75% of the iron of the country is produced by a dozen large companies.

### *Warehousing*

The need of warehousing is for the most part eliminated from the handling of raw steel because of the tendency to manufacture only on order and not speculatively. The great bulk of the basic steel products (shapes, structural steel, tool steel, and the like) is placed on the cars and shipped direct to consumers immediately on their completion. There is one field within the scope of the industry, however, where warehousing is needed. This is in the handling of small quantities of the basic product and in distributing the more highly fabricated articles known as rough hardware.

The iron and steel warehouse serves as a reservoir for basic steel articles. The products are purchased in large quantities and are stored in the warehouses. When a consumer needs a small quantity of some particular basic steel article, he is able to secure it from the supply kept at the warehouse.

The service of the warehouseman is especially valuable if articles of steel are needed immediately. This phase of the situation is being brought out just at this time more strongly than ever before. The warehousemen have contracts with steel producers, stipulating the delivery of certain quantities of product each month.

The liability of certain steel products, such as galvanized sheets, to crack, furnishes the steel warehouse another opportunity to perform a service. Unless these sheets are kept warm, the surface will crack and peel. So great piles of them are kept at an even temperature by means of artificial heat in the warehouses.

### *Inspection of Iron and Steel*

It would be difficult to find an industry in which more attention is given to inspection, weighing, and grading than in the steel industry. Weighing is important because the commodity, whatever it may be—pig iron, billets, beams, plates, bars, or tool steel—is bought and sold by weight. The unit of weight is the long ton, the hundredweight, or the pound. Pig iron and billets are sold by the ton; beams, plates, and bars, by the ton or the hundredweight; tool steel is sold by the pound.

### *Grading of Iron and Steel*

Grading is important because when steel is bought and sold it is

imperative that it be known just what the character of the product is. Some of the more widely used grades are:

1. Bessemer
  - (a) Basic
  - (b) Acid
2. Open-hearth
  - (a) Basic
  - (b) Open-hearth
3. Electric
4. Crucible
5. Alloy

There are three kinds of inspection—chemical, physical, and visual. The first two are performed in laboratories, the last takes place during manufacture. Chemical analysis is the most important of the three. The value of a particular grade of steel depends upon the amount of certain chemical elements it contains. These elements are carbon, manganese, sulphur, phosphorous, silicon, and (in alloy steel) alloys.

The chemical analysis is made with great precision. Usually the percentage is determined down to at least hundredths of a percent, and sometimes to ten-thousandths of a percent. In the latter case, there would be one pound of alloy in a million pounds of the steel.

The chemical tests are usually sufficient, but occasionally physical tests are also made. The usual tests are for (1) elastic limits, (2) ultimate strength, and (3) elongation.

Both chemical and physical tests are performed in the laboratory; testing by vision, however, is made while the steel is in the making. The inspector looks at the steel when it is in the furnace and determines by the appearance of the molten "sea" the time to pour it out. Another sort of inspection by sight is at rolls. Here the inspector looks for cracks, seams, nicked corners, or other defects. Inspectors are always stationed at the finishing mills to look for defects in the finished products.

For the visual tests the purchaser sometimes has a personal representative at the mills and sometimes hires an inspection company (such as the Hunt Inspection Company) to look out for his interests.

### *Trade Information*

As a general rule, one can find government information concerning products that depend more or less on exchanges for their marketing.



One reason for this is that a great number of people are engaged in the production of these commodities.

In the steel industry this is not the case. There are relatively few producers—not more than a thousand at most—and of these, about 100 control approximately 90% of the total product. It is fairly easy to get information when the industry is so highly integrated; and the number of producers is too small a percentage of the total population to merit the attention of the government.

### *Market Price of Iron and Steel*

No paper on steel prices would be complete without at least a reference to the charge that (1) the United States Steel Corporation is a monopoly and (2) that prices are arranged through agreements, pools, and such regulatory means. In the case of *United States v. United States Steel Corporation*, much time was given to these two questions. It was shown that the Corporation is not a monopoly, since it controls (or did at that time) but 40% or 50% of the production of the country, and that competitors are growing faster than the Corporation. There has never been a very satisfactory explanation as to price agreements. From 1901 to 1904, there were steel pools; from 1904 to 1907, there were trade agreements; and from 1907 to 1911 the Gary dinners took place. Whether these three means attempted to stifle price competition it is hard to say. We at least know that they did not succeed. Buyers were unanimous in their statement that they always found competition. The sales manager of the Lackawanna Steel Company, a competitor of the Corporation, stated that as a rule sales managers followed the market price as quoted and tried to get that price.

The Pittsburgh price rules—the other prices being the Pittsburgh price plus the freight.

### *Pittsburgh-Plus*<sup>2</sup>

(1) "The Pittsburgh-plus system, by which rolled steel products manufactured and shipped from points outside Pittsburgh at a Pittsburgh base price plus an amount equivalent to what the freight charge would be from Pittsburgh to the customer's destination, was condemned and ordered abolished today by the Federal Trade Commission."—Washington dispatch.

<sup>2</sup> (1) From editorial, "Pittsburgh-Plus Now Minus," *Literary Digest*, August 9, 1924; (2) from F. B. Garver, "Pittsburgh-Plus," *American Economic Review*, March, 1924; (3) from *Literary Digest*, August 9, 1924.

(2) The Pittsburgh-Plus system means that, regardless of the place of production, the delivered price of steel quoted by the mills is the base price (in this case the ruling price at Pittsburgh) plus the freight to the purchaser's plant. Concretely, it means that a Chicago consumer who hauls steel by motor truck from a nearby mill pays the Pittsburgh price plus the freight from that city, although no shipment by rail has actually occurred. In practice, the system has never been rigidly applied. Purchasers from the Birmingham mills have paid the base price plus a fixed differential that has been less than the freight; in the Chicago district, in recent years, the mills have quoted prices that averaged on most kinds of steel about \$2 a ton above Pittsburgh. Railroads have never paid the "plus" on rails.

The attack on the system was begun in 1919 by consumers of steel in the Chicago district. In 1921, the Interstate Commerce Commission issued a complaint against the United States Steel Corporation and, in conformity with practice, took over the case. The legal basis for the complaint is found primarily in section 2 of the Clayton Act, which makes it unlawful for any person engaged in commerce "to discriminate in price between different purchasers of commodities . . . where the effect of such discrimination may be to substantially lessen competition or tend to create a monopoly." The same section provides, however, that such discrimination shall not be unlawful if "made in good faith to meet competition."

The arguments against the system may be briefly summarized as follows: (1) that it tends to keep the steel industry centralized at Pittsburgh in spite of the superior advantages of other locations; (2) that the prices thus established are discriminatory within the meaning of the Clayton Act; (3) that consumers near other mills than those of Pittsburgh are deprived of the advantages of their locations; (4) that the system could not survive under freely competitive conditions.

In defense of the system the United States Steel Corporation has asserted that price differentials based on Pittsburgh are due to the fact that Pittsburgh is the point of surplus production and that the Chicago district cannot produce enough steel to supply its needs. Under the circumstances, steel must be shipped from the eastern district, and the price quoted will be the Pittsburgh price plus the freight. The Chicago mills will naturally ask and receive the same price. Hence, the apparently discriminatory prices are made in good faith to meet competition.

(3) Elbert H. Gary said after the decision:

"It would seem obvious to us as laymen that a manufacturer at Pittsburgh could not nor should be compelled to sell his product at Chicago for the same price he receives at Pittsburgh, because the additional cost to him is the amount of transportation he has to pay from Pittsburgh to Chicago. The Chicago manufacturer has customers located throughout the country who have no local mills and must go to Chicago for their supplies. They are in competition with purchasers utilizing their purchased commodities at or near Chicago and have no freight to pay. They ought to be protected in some way."

*Advertising Sheet Steel*<sup>3</sup>

On May 21, 1925, twenty-eight manufacturers of sheet steel, comprising 92% of the total capacity of the sheet mills of the country, entered into an agreement to promote a plan which has been under consideration for several years. The purpose of the plan was an extension of the trade in sheet steel and the finding of new uses for that product.

It is the announced purpose of the trade extension committee, of which W. S. Horner is chairman, to coordinate the efforts of the various members of the industry to break down sales resistance, widen existing markets, find new markets for sheet steel, and educate the public in the use of the products fabricated from steel.

Typical of this advertising is a page captioned "The Service of Sheet Steel to the Public." The gist of its copy is that the public in general does not know that sheets are differently made for different uses and that not all sheets are alike. It explains that consumers sometimes buy sheets which are not of the right quality or gauge for the purpose intended and attempts to inform the public regarding the superior service of sheet steel for many uses, and how to be sure of getting the right sheets.

<sup>3</sup> From an article, "Sheet Steel Has Started to Fight," *Printers' Ink*, April 2, 1925.

## XXX

### COPPER

#### *Early Development of Copper Market<sup>1</sup>*

THE copper industry in this country may be said to date from the opening of the Lake district in Michigan, about 1845. At that time England was the foremost copper-producing country and the chief copper market of the world. Most of the British copper was mined in Cornwall and Devonshire, but smelting operations were concentrated largely at Swansea, in Wales. British copper ore had been sold to Swansea smelters from at least as early as 1726 at periodic "ticketings." These were meetings of the miners of a Cornish district, offering ore to the Welsh smelters. Prospective buyers, who had previously sampled the lots offered and assayed their samples, wrote secretly on "tickets" offers for the desired lots, and the president of the meeting then read aloud the bids and assigned each lot to the highest bidder therefor. The development of the smelters and favorable tariff legislation caused large imports of foreign ores for sale to and treatment at Swansea. Great Britain in time became not only the largest producer of copper but, despite many complaints by producers about assays, smelter deductions, and other matters, the principal purchaser, consumer, and distributor of the world. A considerable volume of speculation in copper later developed on the London Metal Exchange, with trading in "brands" (that is, grades) such as "Chili Bars," "Best Selected" or "G. M. B." (Good Merchantable Brands), similar to trading in grades of wheat or cotton.

The opening of the Calumet and Hecla in 1866 marked a new era. Within half a dozen years this mine (originally two mines) had become the dominant factor at the Lake. A tariff laid in 1869 on copper imports effectually cut off foreign competition, and Lake copper, which until the late seventies constituted each year more than 70% of the production of the country, dominated the rather unsteady American market. A pool was formed in the middle seventies, which sold abroad as well as at home the exquisitely pure Lake copper, with which no

<sup>1</sup> From F. Ernest Richter, "The Organization of the Copper Market," *Harvard Business Review*, January, 1923.



other copper in the world could compete for purity, and little other copper for price. Periodical pool sales were also made at home, and there was little real market in this country for primary copper, outside of these sales. Already at this time, the copper market had developed so that there was no place for such a speculative market as existed in England. For reasons that will appear later, this has been true ever since—a situation in striking contrast to the lively speculative market which has normally existed in England for the red metal.

Now, how was the copper being sold, that had been and was going to England? When the rich ores or the mattes were shipped, the pretty general custom was for them to be sold to the Welsh smelters at so much per unit; that is, so much per cent of copper content, frequently under a contract made by the large producers for delivery over a period of time. As copper began to be exported more and more in metallic form, following the erection of increasing numbers of smelters and refineries, both in the West and on the Atlantic seaboard, the practice arose, at least with certain large producers, of selling copper on the basis of prices of certain English brands, such as "Best Selected" or "Chili Bars," just as the practice has prevailed on our cotton exchanges of basing quotations on a standard grade and allowing adjustments for deliveries of poorer or better grades.

#### *Developments Up to the World War*

The decade of the nineties opened up a new era for American copper marketing. By the middle nineties we were producing more than half of the world's copper and gradually refining more and more of the output of our smelters; and in no year since then, with the probable exception of 1921, have the mines of the United States failed to account for over 50% of the world output of the red metal. What with this circumstance and an accompanying increase of smelting and refining capacity, aided by metallurgical improvements, there was less and less reason for dependence on British interests, either smelters or dealers, for a market for copper. This was especially true since this same period marked the beginning of a tremendous development in the domestic electrical industry, including a great increase in electrical transportation and communication. There came about then a growing and permanent concentration of copper selling, both domestic and export, in the hands of a relatively small number of selling agents, most if not all of them controlling or affiliated with important producing properties, either mines or reduction works or both. By the end of the century, the "Big

Four" of the copper market had already come into being, though one of them did not sell its own copper until later.

### *Geographical Localities of Market Centers<sup>2</sup>*

The peculiarity of the copper trade is its concentration in the East. Copper mining and smelting is being done in the widely separated regions of Lake Superior, Arizona, and Montana. Refining and selling, however, is all but confined to New York, Boston, and Baltimore. The reasons for this concentration are the concentration of brass foundries in the East, particularly in Connecticut and New Jersey, the location of such large consumers as the General Electric Company, in Schenectady, and the Westinghouse Company, and finally the great demand from abroad with its consequent piling up of copper stock in the great ports. The Kenosha branch of the American Brass Company, for instance, closes all its contracts for the purchase of copper in New York, although shipment is made direct from the mines to the foundry. There are no local markets in the copper trade such as might be expected to exist near the mines.

### *Consumer Market and Its Relation to Market Centers*

The consumer market has determined the location of market centers with copper as with no other commodity. The permanency of the concentration of the entire copper trade in the East may be questioned. The inconvenience for consumers in other parts of the country is not great, since shipments are made direct from the mines, and negotiations only are carried out with New York. Furthermore, most of the copper firms have offices in the important trading centers.

### *Buyers and Sellers in the Local Market*

The copper trade organization in Chicago is probably very similar to that of any one of the large trade centers outside New York, Boston, and Baltimore. It is rather simple and is dominated by the large traders in the three great eastern cities. Buying is being done in Chicago for consumption only by the electrical trades and the railroads chiefly. Selling in Chicago is done by metal brokers, if the amount required is less than a car lot. Contracts for larger amounts are closed in New York. The Western Electric Company maintains a purchasing agency in New York. In case of "hurry" requirements, however, it buys from metal brokers in Chicago.

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<sup>2</sup> From "The Marketing of Copper," an unpublished paper by J. R. V. Liemert, University of Chicago, December, 1916.

*Buyers and Sellers in the Wholesale Trade*

The function of the majority of the five great copper wholesalers in New York is to dispose of the output of their own mines direct to consumers who can buy in sufficiently large quantities. When the large metal jobber does not own his own mines, he may contract for his future supply, frequently for several years ahead. The exact nature of the agreements in such cases varies. But it seems that even where mines are not owned by eastern wholesalers, they are yet controlled by them.

The buyers are principally brass foundries, railroads, the electrical trades, shipyards, manufacturers of war supplies.

The metal broker, buying from the New York wholesaler and selling in the East as well as in the West, is in some sense a retailer. He buys in more than carload lots and sells in smaller quantities. He may buy outright, selling on his own account, or he may sell as the wholesaler's agent for commission. There are no other middlemen in the copper trade.

The integration in the copper trade has already progressed so far that further development in this direction cannot be expected. Attempts toward control of all copper have been made but never with success. The assumption that in spite of denials a central control of the large copper concerns does exist is corroborated by Mr. ———, who said that everyone of the copper trade knows of the "gentlemen's agreement" dominating the copper market.

Wherever the eastern wholesalers find it worth while to sell direct to large consumers, they do so. Some of the middlemen's functions have been assumed by the consumers. The railroads as well as large electrical concerns have their purchasing agents, who watch the market, relieve the wholesalers at least of a part of their function of establishing the contact between consumer and producer, and on the face of the situation help in equalizing prices. So far as the metal jobbers in the East do not own their own mines, they still retain the function of financing the producers and the function of sharing the risk of a changing market with the producers by contracting in advance for the mine's output for a long period. The function of shifting costs of producing and distributing to the consumer is done in the most direct and obvious way.

The transportation factor has had considerable importance in determining the location of smelting and refining plants. It does not pay to transport copper ores very far. Consequently, smelting plants of the



Anaconda Mine and of most other large mines are situated near the producing regions. For the same reason, it will pay to explore the large copper deposits in the interior of Alaska only when smelting plants can be erected near the mines, and metallic copper, not ores, can be transported to the consumers across the continent.

The concentration of the copper trade in few hands has had the same effect on the transportation factor connected with it as with other commodities under similar conditions. Large eastern interests control not only the copper from the point of mining to its sales in a semi-manufactured condition, but they also exert their influence on the railroads in the determination of rates.

The uniform rate on copper charged by all roads from the principal copper districts to New York (1916) was ten dollars per long ton. The "lake rate" of the Anaconda mine in summer was only \$7.60 per ton, of which sum \$6.00 was paid to the road and \$1.60 for water transportation.

The rail rate between Anaconda and New York is a so-called "refining rate," a combination rate on the ores transported to the smelting point, switching and unloading charges at the smelting point, and the balance for rail transportation of metallic copper from the smelting point East.

#### *Organized Exchanges*

The New York Metal Exchange never played an important rôle in determining copper prices, and it has ceased to count altogether of late. The concentration of ownership of copper mines in the hands of few interests in the East is carried so far that there seems to be no need for an exchange. The various grades of copper are sharply differentiated, the capacity of the mines in operation is a known quantity, the power to dispose of this quantity rests with four or five New York offices.

#### *Warehousing*

Warehouses have little importance in the copper trade. In general, the most important function of warehouses is storing a surplus of commodities until they can be distributed for consumption. Obviously, this need does not exist with copper. There is not much copper produced above the immediate needs of copper consuming industries here and abroad, even in normal times. There is no need for warehouses because every large quantity of copper produced has usually its definite purchaser when it is still at the mine.



Copper after having been smelted is refined electrolytically to any degree of fineness called for in specifications accompanying every contract. The extent of carrying the refining process varies according to the uses to which the metal will be put. Often admixtures of other metals are administered, processes leading to a great variety in the sorts of metal marketed. Inspection usually is not necessary as in the case of grain; the copper must conform to the specifications when it is delivered, or else it may be rejected by the purchaser.

Copper warehouses do exist in isolated cases. The Great Lakes Transit, one of the steamship lines on the lakes, operates warehouses for the storage of copper in Buffalo. Other copper warehouses are located in Duluth and belong to railroads. These warehouses, especially those owned by the steamship line, are designed to encourage shipping of copper over the combined lake and rail route. They are meant to store shipments of copper arriving during the winter season until the lakes are navigable.

The Anaconda Mine maintains warehouses at Black Eagle, near Great Falls, Montana. Representatives of foreign buyers inspect their purchases at this place, before shipment is made to the coast.

#### *Inspection, Weighing, Grading*

After the copper is subjected to the refining process it is tested by engineers in the employment of the mining companies. Lots of metal not passing these tests are kept back for further refining.

Inspection of shipments of copper destined for foreign countries is made by agents of these countries, usually at the refining points. In case of the Anaconda Mine this inspection is being done at Great Falls, Montana.

The Bureau of Geological Survey of the Department of the Interior is practically the only government agency collecting and publishing copper statistics. Copper trading firms all over the country who are on the lists of the Bureau are solicited every year for a record of transactions.

Since prices are made by the demand from abroad and not by the domestic demand, information on conditions in England and particularly Germany, our best copper consumer before the war, is highly important.

#### *Changes Since the War<sup>3</sup>*

Aside from a quantitative difference, the principal change brought

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<sup>3</sup> From F. Ernest Richter, *op. cit.*

about by war conditions and postwar conditions in the copper industry was the formation in December, 1918, of the Copper Export Association, Incorporated. This was an association brought into being under the permissive provisions of the Webb Export Act of April, 1918, of which the members were some fifteen or twenty of the principal American producers who desired to take advantage of the provisions of the Webb Act to cooperate in the exporting of copper. The membership of the association included the four big selling agencies of the American Smelting and Refining Company, United Metals Selling Company, Phelps-Dodge Corporation, and Calumet and Hecla Mining Company, and included also the principal mining companies which sold their metal through these agencies, as well as other producers. Considering the fact that most of the foreign copper which came into the United States to be sold passed through one or another of these agencies, it may be said that membership in this association represented control in one form or another of about 80% to 90% of the primary copper in the New York market. No member of the association is required to allot any specific portion, either maximum or minimum, of his production or sales to the Copper Export Association, but members do agree to sell all of their export copper through the association.

By the end of 1920, the Copper Export Association and its members found themselves in possession of a quantity of copper that was becoming too unwieldy to handle without the assistance of financing other than through bank borrowings. Early in 1921, therefore, the association floated a loan of \$40,000,000 in serial notes, guaranteed by the several members of the association and also secured by the pledge of 400,000,000 pounds of copper which, it was agreed, would be held out of the domestic market and used solely to make foreign sales.

### *The International Copper Market*

The international aspect of the market for American copper is similar to the domestic aspect in so far as direct selling by the great American selling agents is the rule. Before the war, at least a half-dozen principal agencies had affiliations or agents abroad through whom they placed export sales. Of course, the control of the market in European countries was and is shared with production of non-American copper, and the proportion of direct sales to consumers was and is probably much less than in this country. In London, the Metal Exchange, while stripped of much of its importance of former years as a regulator of world copper prices, still functions, and copper is dealt in there both

for cash and for future delivery. The exchange is by far the most important European speculative market for copper. In spite of the fact that before the war Germany was the largest consumer of copper outside of the United States, all efforts to establish dealings on an important scale in copper on exchanges in Berlin and Hamburg proved rather futile; and in Germany, as elsewhere, the product of American copper refineries, probably shipped largely on order, has been the principal source of supply of the red metal.

Since the formation of the Copper Export Association, that body has, of course, been the principal exporter of copper from this country. Some of the important producers are not members of the association, but the membership does include the very great bulk of American copper refinery production; and since its members agree to sell no copper abroad except through the association and since, apart from any other copper the association has had, the 400,000,000 pounds which it specifically pledged in 1921 was to be devoted solely to export purposes, the overshadowing importance of this association in the export field is clear. The association, like the individual selling firms before the war, has maintained agencies and affiliations abroad and has shipped moderate amounts of copper abroad on consignment in order that it might be able to fill orders promptly.

## XXXI

### LUMBER

#### *Characteristics of Lumber Industry*<sup>1</sup>

ONE of the distinctive characteristics of lumber manufacture is the nature of its relation to the supply of raw material, that is, logs.

Sawmills therefore use as raw material a natural product the total supply of which is known, inconvenient to transportation, and originating in sources nearby. Mills have been located with reference to cheap log supply rather than to convenience in marketing their product. The steadily increasing relative exhaustion of the raw material of lumber manufacture is attested by the fact that one-half of the original stand of merchantable virgin timber in continental United States has been consumed (1909), and that the present rate of total annual growth is about one-third of that of the annual cut.

#### *The Transportation of Lumber*

The farther the sources of lumber production have receded from the centers of consumption, the greater has been the proportion of the delivered price which is absorbed by transportation costs. Such costs were relatively unimportant as long as lumber traveled only short distances to market or where cheap water transportation was accessible. Today, lumber constitutes the largest single item of railway tonnage in the Pacific Northwest, while in the South it is exceeded only by coal.

"The shifting of the source of the lumber supply has prevented the lumber (freight) rate structure from ever attaining a condition even approaching stable equilibrium."

During the period in which the lake states were the chief source of supply, transportation to market was mainly by water, especially by the Great Lakes and by the Mississippi River. The subsequent shift to the South and finally to the Pacific Northwest has involved almost complete dependence upon the railroads for the transportation of lumber to the interior markets. Cargo shipments are still maintained to eastern ports from South Atlantic and Gulf States mills which have

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<sup>1</sup> From Wilson Compton, *The Organization of the Lumber Industry*, published by *American Lumberman*, Chicago, 1916.



cheap access to tidewater. Coastwise trade by many of the West Coast mills is still of considerable proportion, although the total quantity so consigned to domestic ports is relatively unimportant.

*Encouragement of Lumber Industry by the Railroads*

The lumber carrying railroads of the interior northern region continued to foster the declining white pine industry of the lake states. They made relatively lower rates to competitive markets on white pine lumber than on southern pine. They encouraged the development of agriculture on lands denuded of forests and justified their discrimination against the southern pine manufacturer on the grounds that there was no southbound traffic for the cars that brought the yellow pine to northern markets. With the depletion of the northern forest, however, the rates on southern pine have been reduced.

While the northern railroads were thus discriminating in favor of the white pine mills, the railroads newly constructed in the South and in the Southwest were attempting to stimulate commerce in southern lumber. By successive reductions in the rates applying on northern shipments the railroads secured for yellow pine a standing in the northern, central and middle western markets. As the production of white pine further declined, the control of supply to interior consuming territory by the southern mills became almost complete. The shift, therefore, from one source of supply to another has been either artificially stimulated or retarded by the action of the railroads.

Until 1894, the West Coast lumber industry had been but little developed. It had depended upon water transportation for the extension of commerce beyond local markets. The establishment in 1894 by the Hill roads of a 40-cent rate on lumber to Minneapolis and of a 50-cent rate to Chicago is an excellent example of a deliberate attempt to encourage traffic which was at the same time of low grade, of long distance, and competitive. There had been much medium and low-grade West Coast lumber unable to bear the former transportation costs. What of this was not consumed locally or in markets accessible by water was, therefore, a practical waste. Since there was then a normal eastbound movement of "empties," the new rates were fixed by the carriers to a little more than enough to cover the additional cost incurred in the hauling of loaded cars in place of "empties," that is, according to the "value of the service." An enormous lumber traffic has been built up. A new check, actual or potential, has been thereby imposed upon the prices to which competing lumber in the same mar-

kets from other sources may rise. Lumber has since become the largest single item of transcontinental traffic.

### *Species of Commercial Importance*

Ranked according to their importance in the manufacture of lumber in 1912, the commercial woods are:

Species	Sources	Per cent of total cut in 1912
Yellow pine .....	Southern States.....	37.6
Douglas fir .....	Pacific Northwest.....	13.2
Oak .....	Central States.....	8.5
White (northern) pine	Lake States.....	8.
Hemlock .....	Lake States; Pennsylvania.....	6.2
Spruce .....	New England; West Virginia.....	3.2
Western pine .....	Rocky Mountains and Pacific States...	3.1
Maple .....	Michigan, Wisconsin.....	2.6
Cypress .....	Louisiana, Southern States.....	2.5
Poplar .....	Central States.....	1.6

### *Average Mill Capacity*

In 30 years there has developed no tendency indicating any economy inherent in the concentration of lumber manufacture in very large mills. What maximum productive efficiency, all factors considered, has been secured in mills of moderate size is reflected in the common practice among owners of large tracts of timber of building a number of mills in preference to concentrating manufacture in a single great mill.

This is the prevailing policy among the owners and manufacturers of yellow pine. It is but little less characteristic of the lumber industry in the Pacific Northwest. In this condition, prevalent in the industry, lies the explanation of the concurrent operation at strategic points of scores of mills manufacturing the same kind of lumber, many often under the same or associated managements.

### *Competition Between Species of Lumber*

Different species of lumber are often adapted to identical uses. In all such cases the scope of potential competition between them is unlimited. Physical properties are the chief determinants of available uses. For certain purposes many species are adaptable; for others, only one. Thus for framing and for rough construction, fir, western pine, yellow pine, North Carolina pine, hemlock, spruce, and northern pine are physically qualified. Interior finish also permits of the use of a wide range of species. In general construction work and in sash, door, blind, and general millwork, both soft woods and hard woods are employed, the former greatly predominating. Low grades of several

species, especially of northern pine, are used in the manufacture of boxes and crates.

Hard woods predominate in the furniture industry. Yellow pine, fir, and white oak enter most extensively into car construction. The miscellaneous wood using industries use large aggregate quantities of lumber, chiefly of hard wood. Competition is often keen also between lumber of the same species from different sources. For example, lake states hemlock has, in recent years, invaded the Buffalo and Erie Canal markets, practically driving out the Pennsylvania stock. In turn, western hemlock, an allied species of similar physical properties, had by 1909 expelled the lake states stock from many of the same yards.

### *The Lumber Markets*

The territory tributary to any given source of lumber supply during the past fifty years is capable of only general definition. It has been shown that local production for local distribution was generally characteristic of the lumber industry before the Civil War. The white pine region thereafter became for 30 years the center of supply for the eastern and central markets. It also furnished a very large proportion of the lumber used in the building up of many of the prairie states. During this period the lake states were conspicuously and characteristically the producers of a surplus of lumber intended for distribution in those states in which domestic supply was inadequate. This inadequacy in some regions was due to the almost total absence of standing timber. Much more frequently, however, especially in the eastern and central markets, it was due to the exhaustion of the local supply of timber of the particular quality then demanded. Thus the original demand for foreign lumber, that is, lumber from a distant region, has been for the high grades which could not be produced at home.

### *Relation of Wood Using Industries to Sources of Supply*

As the relative scarcity of timber has increased, the demand upon the surplus of other regions has extended itself to lower and lower grades. The growth of the lumber industry in the lake states was accompanied by the development of the other interests which gradually absorbed the low-grade lumber which could not have been profitably sent to distant markets. Thus have grown up many of the wood using industries of the lake region and of neighboring centers which have been reached by cheap means of transportation. The furniture industry has become centered in Grand Rapids, within the hard wood belt of



the Lower Peninsula of Michigan. Chicago has become the home of great wood using factories to which lumber of all grades was formerly sent from the northern mills by cheap water transportation.

#### *Development of Lumber Industry in the South*

As the surplus of the white pine region began to decline during the eighties and the early nineties and as the prices of lumber showed a relative advance in response to the influence of increasing scarcity of supply, southern pine began to replace the higher grades of northern lumber in the eastern and central markets. Previous to 1880, North Carolina pine had been manufactured almost exclusively for local consumption. It had then acquired an uncertain foothold in the Baltimore and Philadelphia markets. Its first appearance in the New York yards was in 1886. This new outlet gave a great impetus to lumber manufacture in Virginia and the Carolinas.

#### *Extension of Market for Southern Yellow Pine*

During this period also, yellow pine from the Gulf States entered the central markets in competition with lumber from the North. High grades only were then capable of absorbing the relatively heavy transportation costs. As the supply of northern pine continued to decline, an increasing stock of yellow pine lumber of high—and later of medium—grade entered the market. Gradually the limits of the territory tributary to the northern mills have been driven northward. Yellow pine is now to be found in the yards of northern Iowa. It has entered even the lake states themselves; it constitutes, with North Carolina pine, the chief supply of the eastern markets. In addition, the domestic demand for all grades is met almost exclusively by domestic production. Thus southern lumber, since the eighties, as far as transportation costs have permitted, has invaded and in large measure appropriated territory previously supplied by northern pine.

#### *West Coast Lumber*

Lumber manufacture in the Pacific Northwest has been greatly stimulated by the reductions, conceded in 1894 by the western railroads, in the transcontinental freight tariffs on lumber. By 1900, western white pine from the "Inland Empire" had found a ready market in the Middle West in place of northern pine. Between 1902 and 1905, cargoes of fir lumber of high grade and large dimensions entered the New York market. By 1906, fir timbers were there a confirmed substitute for southern pine. As early as 1899, cargoes of fir flooring had reached



Boston, because of the high prices prevailing there of maple and of yellow pine stock. By the period of maximum prices in 1906 and 1907, high-grade fir was shipped in considerable quantities to the eastern markets. It had secured a reasonably secure footing, by 1909, in the Buffalo market. For many years previously, fir had been a strong competitor in the Chicago market with yellow pine as a material for car construction. Because of the relatively light transportation costs, however, the southern lumber had a strong advantage. Indeed, when, after the panic of 1907, the price of yellow pine suffered a tremendous decline, the market for western lumber in territory east of the Mississippi River was practically wiped out for a time.

### *Invasion of Eastern Markets*

Washington red cedar shingles have recently acquired an almost nation-wide market. About the year 1904 they first invaded the East Central States. Five years later they were securing most of the trade in that region and were, moreover, competing, apparently on equal terms, with cypress shingles in the Southern States themselves. In 1912, nearly 79% of the shingles manufactured in the United States were of red cedar from the Pacific Northwest. Thus within but little more than a single decade West Coast lumber had acquired a practically nation-wide market for high-grade stock.

The consuming territory dependent upon the western mills for the bulk of its supply of all grades has been extended eastward beyond the Missouri River and southward to western Kansas. Competition between the three great centers of lumber production is at present very keen in Iowa and in eastern Nebraska, a territory to which all have access. Western lumber has tended to push the limit of its tributary markets east and south. The competition of southern and western mills has now confined the distribution of northern lumber to a relatively narrow range.

### *Distribution of Lumber for Factory Uses*

Wood using industries dependent upon lumber of a particular species or quality have created and fostered a market for such wood despite the continued recession of its production from centers of manufacture. Such industries have tended to continue in operation in close proximity to their consuming territory. The furniture industry, long established in the Lower Peninsula of Michigan, now secures from other states nine-tenths of its oak lumber and five-eighths of its entire supply of all species. In general, the location of factories using lumber for high-

grade uses has been adjusted to the easy marketing of the product rather than to cheap access to raw material.

### *The Ownership of Standing Timber*

The ownership or control of stumpage has been generally but not necessarily a condition of lumber manufacture. Most manufacturers have owned their own stumpage. Others have bought logs delivered at the mill. Large quantities of timber also have been withheld from the saw with deliberate view to higher future prices. The recent tendency toward the consolidation of extensive tracts into single holdings has become an important potential influence in the industry. The control of stumpage involves the potential control of lumber manufacture through the control of its raw materials. It is generally recognized by the lumberman as having been the great source of profit in the industry, rapidly absorbing any increase in the prices of lumber.

### *Logging*

The felling of standing timber, its division into suitable lengths for the sawmill, its delivery by rail or by river drive to the mill, has been a distinct industry in many regions. The majority of manufacturers have their own woods "crews"; others let a contract to logging companies. Such companies have been prominent in the industry on the Pacific Coast. In the early period, when logs were delivered to the mill almost exclusively by water, timber owners frequently surrendered their logs at the river bank to companies of river "drivers," for delivery "in the water," that is, at the mill. In the eastern forests of the United States, where delivery is usually necessarily by rail, this custom no longer prevails.

### *Selling Agencies*

Central agencies for the selling of logs or lumber have at times been a conspicuous part of the distributive mechanism in many regions. The success which has attended the establishment of selling agencies formed to distribute the product of manufacturers similarly located has led to such associations among the manufacturers of southern cypress and later among those of sugar pine, redwood, fir of the Southwest and Washington, hemlock, and maple. In 1904 was organized the Washington Logging and Brokerage Company, which then controlled 60% of the fir log output of the state. There have been many organizations among the loggers of the Pacific Northwest.

*Manufacture of Lumber*

The manufacturer of lumber has frequently exercised all the functions within the lumber industry. He has owned, cut, and manufactured his own product. As a manufacturer, however, his activities have been confined to the production of lumber from the raw material, logs. Only partially applicable to the lumber industry is the customary triple classification of distributive mechanism, namely, into manufacturer, wholesaler, and retailer. For example, one-third of the product of yellow pine lumber is sold direct to large consumers, such as the railroads and construction companies. The rest is sold to wholesalers, brokers, and retailers, most of it to the retail yards direct. This type of mercantile organization has prevailed also in the marketing territory tributary to the mills of the Pacific Northwest.

*Line Yards*

Many manufacturers have operated wholesale and retail yards. In the soft wood lumber trade the wholesaler, as such, has become relatively unimportant; in the hard wood trade he is the chief distributive agency. Most of the producers who have discharged multiple functions are manufacturers of soft wood. Some have owned as many as one hundred retail yards distributed throughout their marketing territory. Especially in the Middle West had the retail trade, by 1907, fallen to a large extent into the hands of "line yard" companies.

*Leading Wholesale Markets*

Distributing markets have been evolved as a result of the dynamic changes in the geography of lumber production. Bangor, Albany, Curlington, the Tonawandas, Chicago, and Minneapolis have been successive centers of white pine distribution. In Memphis, Nashville, Cincinnati, and Chicago has become centered a large proportion of the wholesale hard wood trade. Chicago now receives lumber from the North, northern pine; from the South, southern yellow pine; and from the West, fir and western pine. In the soft wood lumber trade of the West and South "basing points" in strategic locations have to a large extent taken the place of wholesale centers. New Orleans for cypress, Norfolk for North Carolina pine, Savannah, Jacksonville, Hattiesburg, Beaumont, and Houston for southern yellow pine, have been typical in their respective regions. Portland and Puget Sound cities for fir, Spokane for western pine, Minneapolis for northern pine, Wausau for lake states hemlock, have become important "basing points."

As the source of lumber supply has changed, the distributive mecha-



nism has gradually adjusted itself to the demands of economy in the transportation of the product to consuming territory. Since lumber is very heavy in proportion to its value, differences in the cost of transportation to market are of great importance. The geographical distribution of wholesale centers has been determined chiefly by the demands of economy in transportation.

*Wholesaling Conditions in the Middle West*<sup>2</sup>

The clear-cut channels of trade in lumber which characterized the Middle West 20 or 30 years ago have to a considerable extent been broken up by the cross currents of rapid and complex industrial development. White pine of the North is now but one of some 10 or 15 species from which the consumer may select. Substitutes for lumber, aggressively merchandized, also intensify competition and add to the pressure on the wholesale market.

Wholesaling is an essential process in lumber distribution, and the type of organization best adapted to different conditions of trade will undoubtedly be determined not so much by small differences in cost as by efficiency and service. The many types of wholesaling organizations include lumber manufacturers, selling agencies, independent wholesalers, brokers, commission men, and catalogue houses. Most small mills are dependent on middlemen for marketing their lumber and often for financial assistance.

Railroads, large construction companies, wood using factories, and retailers are the principal wholesale buyers of lumber. The bulk of it is bought on the current market under conditions as complex as those existing in the selling end. Wholesale buyers are often able to whipsaw one seller against another, particularly during periods of depression, and in other ways exert strong downward pressure upon wholesale prices. During the past ten years the trend in buying appears to have been in favor of transactions direct with the mill, especially in the case of retail lumber dealers and railroads.

Wholesale distribution embraces the sale and handling of lumber in bulk. It puts the product of the sawmills into the hands of consumers who buy in relatively large quantities and of retailers who redistribute in smaller amounts. In wholesale distribution, therefore, there are two distinct factors, (1) sale transactions and (2) transportation.

Strictly considered, wholesale distribution begins at the mill yard,

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<sup>2</sup> From *Studies of the Lumber Industry*, part VIII, United States Department of Agriculture, Bulletin No. 115. The Distribution of Soft Wood Lumber in the Middle West, by Ovid M. Butler, Forest Products Laboratory.



but it is the general custom to consider the cost of loading lumber into freight cars as a mill cost. For this reason, lumber on cars at the mill, freight unpaid, has been taken as the point at which distribution begins.

#### *Wholesale Sellers of Lumber—Mill Direct*

Some mills follow a policy of selling exclusively through their own salesmen and sales departments; others sell only through wholesalers and commission men; others sell both through their own organization, mill agencies, wholesalers, and commission men. In actual practice, particularly in times of stress, however, mills will sell through any channel yielding the required price.

Merchandising through the manufacturer's own organization is carried on by three broad methods: (1) By selling offices and traveling salesmen; (2) by local mill representatives; (3) by mail. Large mills, as a rule, sell a part of their output through salesmen, who travel throughout the consuming territory. Selling organizations and policies, however, are subject to many variations. In some cases but one selling office is maintained, either at the mill or at a central market point; in other cases two or more selling offices are located in different market regions, with salesmen "on the road" operating from each. These selling departments may be operated at cost or on a specified margin per thousand feet. In the latter case they are often required to show a profit upon the year's business, this being the difference between the margin allowed for selling and its actual cost. In some cases these selling offices are operated as separate companies, the interlocking relationship varying from practically no control to absolute control of the mill by the sales company, or vice versa. Such sales offices may handle lumber from other sources also, thus engaging in a general wholesale business. Special concessions in price are, however, often granted by their own mills.

Another method of direct wholesaling by the manufacturer is through local mill representatives. This plan is usually followed by mills which are far from the market and find it advisable to have an agent in the market in order that they may be kept informed of its conditions and requirements. Such a representative is sometimes a salaried employee of the company but is often paid only on the volume of business which he develops. He is therefore independent in many respects and may often handle products of several mills. As a rule, he deals in the higher grades of lumber and therefore caters to a rather special trade.

Selling by mail is, of course, incidental to all wholesaling, and a

great volume of business is transacted through this medium alone. The term as used here refers to transactions wherein the business is obtained and handled by mail. The procedure consists simply in sending out to both wholesalers and consumers a list of stock on hand with the prices at which it can be purchased. The customer or dealer looks over the stock sheets as they are received and orders anything thereon which he wishes at the price quoted. This practice is common with both large and small mills.

Aside from a number of large catalogue houses which transact both a wholesale and retail business, selling exclusively by mail on the part of the manufacturers is limited almost entirely to small mills. During periods of depression, when sales of lumber are slack, the mailing of stock sheets from both small and large mills assumes large proportions and contributes to instability in market prices. Wholesalers as well as buying retailers and large consumers compare the prices quoted by a large number of mills and select the lowest offers.

Opinions on the part of lumber manufacturers who are in a position to develop selling organizations of their own vary widely as to the most efficient method of merchandising. The mill maintaining its own selling department claims decided advantages in the merchandising field under conditions existing today. This method enables the mill to control the marketing of its own product and to come into contact with its customers and their requirements. By being able to exercise direct control over the sale of his product, the manufacturer undoubtedly occupies a position of greater safety than where the disposal of his entire output and the success of his plant depends upon middlemen. It further enables him to control prices better and to meet competition more intelligently by keeping in close touch with market conditions and by eliminating middlemen's profits, which tend to lower the f.o.b. mill price. Furthermore, wholesaling through his own organization assures the manufacturer that his product will not be subject to grade manipulation by unscrupulous middlemen and enables him to develop a reputation for the quality of his stock, business policies, and standards of manufacture.

From the standpoint of service to the consumer, it is open to question whether the method has advantages except in so far as it protects him against irresponsible wholesalers and assures him more uniform stock through his knowledge of the mill with which he is dealing and the quality of its products. On the other hand, the particular mill with which the consumer is dealing may not be able to fill his order imme-

diately, and time and money may be lost in locating and getting the material from other sources. During periods of normal business it requires from three to four weeks for lumber to reach the wholesale consumer after it has been ordered. Delays often arise to lengthen this interval, such as the misrouting of cars, car shortage, and the like. If the mill with which the order is placed is short of the stock desired, additional time may be lost to the purchaser unless he is in close touch with mill stocks generally. If the mill has no local agent or salesman in the territory, the distance between the mill and the consumer is often a disadvantage to both, particularly in the case of complaints, credits, or misunderstandings.

In point of price, direct trade has obvious possibilities of gain to the buyer. In a competitive market the mills are normally in a position to underquote the wholesale broker, particularly on large orders or term contracts; and there is the further opportunity to obtain low rates in direct sales from competing mills.

### *Middlemen*

Wholesalers of lumber are of three classes—wholesalers without yards, wholesalers with yards, and commission men. The jobber and wholesaler may for all practical purposes be considered identical, and the two terms are here used interchangeably as applied to independent wholesaling units. The distinction is largely obliterated in practice, since the business transacted is essentially the same and the same company may transact both a wholesale and jobbing business in the strict sense of the term. It should be borne in mind also that lumber wholesalers commonly handle a certain amount of business on a commission basis, and that in large cities a retail, wholesale, and commission lumber business is often conducted by the same company. Hence, a clear-cut line between the classes of dealers does not always exist.

The organization of the wholesaler consists of an office at one or more places in the consuming territory, and traveling salesmen and commission men if the volume of business is sufficiently large. The larger wholesale companies often maintain buying offices in regions producing the species which they handle in greatest volume. The assets required of the wholesaler who establishes a permanent and responsible business are capital, a knowledge of markets and market requirements, buying and selling responsibility, and familiarity with the conditions and methods of manufacture of the various woods.

The primary function of the wholesaler is, of course, to market lumber upon a large scale, serving the manufacturers as a seller of their



products and the large consumer and retail dealer as a buyer of stock required in their businesses.

Manufacturers make either current sales to wholesalers or contracts covering a given period. Some mills, for example, enter into contracts with wholesalers for the disposal of a stated footage annually, paying an agreed price per thousand feet or per car for selling. Other mills simply sell a part or all of their product to wholesalers at a given amount off the mill price. Concessions in price made to wholesalers by the mills vary in different producing regions and often between manufacturers in the same region. In the Douglas fir territory the common practice on the part of mills is to sell to the wholesaler at .50 per thousand feet less than the current wholesale market price for common grades and \$1 per thousand feet less in the case of upper grades. In the Inland Empire the mills ordinarily grant the wholesalers a reduction of \$1 per thousand feet, while in the South concessions range from .50 to \$1.50 per thousand feet.

In addition to his function as a distributor, the wholesaler is of direct financial service to the small mill in a great number of cases, and not infrequently to large mills. It is a more or less common practice for him to advance 75% or 80% of the cost of the lumber to the mill upon receipt of the invoice. Small mills, as a rule, are not financially strong enough to hold their lumber, but must ship it as soon as cut and obtain some money on it immediately in order to continue operations.

A further service performed by the wholesaler is that of handling accounts for the mills which he represents. Wholesalers, as a rule, discount their bills to the mill and then assume the risk and expense of collection from the customer.

### *Wholesale Yards*

The wholesaler who in connection with his regular selling business operates a yard at which he carries a stock of material available for distribution upon short notice renders primarily the service of economical assemblage at a central point and prompt delivery of special stock required in limited amounts by outlying yards or large-scale users. Through this service retail yards favorably located with respect to the wholesale yard can obtain in mixed carloads, with practically no delay, stock of different species manufactured in many different regions. In the case of retail yards located at the same point, the stock can be obtained immediately by team delivery. They are thereby saved the necessity of carrying large stocks in these items over long periods.



These wholesale yards, when situated at favorable railway transfer points, often do a lumber storage business either for the mills or for other wholesalers. This consists simply of storing the lumber until it is sold, when it is reshipped to the point of final destination. Established storage rates are charged by the wholesale yard. The arrangement is especially advantageous in enabling the mill or wholesaler to meet an urgent delivery order, particularly where the lumber must otherwise undergo long shipments, as when Douglas fir is sold in southern Wisconsin.

The business available to wholesale yards is thus of a special nature and more or less limited. As is shown later in this report, it is also much more costly to transact by reason of additional handling of the lumber and the greater investment required. The amount of lumber which passes through wholesale yards in the Middle West compared with the total amount moving is relatively small.

#### *Commission Men*

The commission man merchandises for the mill on an agreed charge per unit of quantity. No standard commission is fixed in actual practice. In some cases it is based on the thousand-feet unit, in other cases upon the carload. Some mills have a sliding scale of commissions based upon the grade and value of the lumber sold. Usually, though not always, the commission man's organization is small and he works as an individual, particularly where his business is exclusively on commissions.

Wholesalers, both large and small, ordinarily combine a commission business with their wholesale business, sometimes on a large scale. Wholesalers often employ commission men at distant points and pay them an agreed division of the commission which the mills grant them. A great deal of Douglas fir is sold in the Central States and the East by this arrangement. In large cities it is not uncommon for retail dealers to handle a small amount of wholesale and commission business in connection with their retail operations.

#### *Selling Agencies*

The mill selling agency is of comparatively recent origin in lumber distribution, its existence dating from about 1900. The objects of the selling agencies which have thus far engaged in lumber merchandising have been essentially the same, although their methods have been different and the success attained has varied.

Under their contracts, the mills give the company a discount on the mill value of the product sold, which has varied somewhat, but for several years has remained at 6%.

The agency, however, buys outright the lumber, lath, and shingles contracted, and resells them at such prices as it sees fit. It also buys and sells some stock manufactured by outside mills. The company assumes all the risks of bad debts, discounts, and other losses incident to the business, in the same manner as an ordinary wholesale concern. It advertises in the lumber trade papers and a few periodicals issued by industrial firms.

### *Wholesale Buying*

Wholesale consumers of lumber may be roughly classified as railroads, large construction companies, and wood using factories which remanufacture for further sale. Wood using factories, while not customers in the usual meaning of the term, are so designated in this report for convenience.

In actual practice, no hard and fast rule defines a wholesale buyer. Those who use lumber in carloads or cargoes more or less continuously are ordinarily considered legitimate wholesale buyers by the trade.

The great diversity and complexity in selling methods applies equally to buying methods. Wholesale lumber buyers are of many kinds—long-term and short-term buyers, emergency or current buyers, quality buyers, price buyers, and speculative buyers.

Long-term buyers are found among both large and small purchasers. The usual method is to contract at a certain time of the year for the requirements during the coming twelve months or longer, delivery being made as specified during the period covered by the contract.

When the parties to a long-term contract are unreliable, market fluctuations often result in breaking the contract, which in many cases is followed by a lawsuit. Long-term contracts involving the immediate delivery of a large part or all of the material needed during a year involve the tying up of large amounts of money. This practice is restricted largely to the factory trade. Under reasonably uniform market prices, however, there is no doubt that contract buying would be the most economical method of merchandising to classes of trade which can forecast their future requirements. Short-term contracts are usually 90 to 120 days, and to a lesser degree are subject to the same advantages and disadvantages.

The more common practice in the wholesale trade is to buy at current market prices, specifying either immediate or future delivery.

This buying is heaviest, not during periods of low market prices, but during a rising market.

Buying and holding lumber in the wholesale market purely as a speculative measure is not commonly practiced.

The transit-car business is to a large extent a "price" trade, particularly during periods of depression, when it assumes marked proportions in some of the central cities like Chicago. This practice, as referred to here, consists of shipping carloads of lumber before any sale has been made, the shipper or buying dealer depending upon effecting its sale before it reaches the original destination. It may be diverted in transit or reconsigned in order to provide the seller more time in which to locate a buyer. The practice has developed to large proportions in the past ten years, in part because of the need of small mills to move their stocks immediately in order to obtain money. If orders are not available, the millman consigns his lumber by carloads as manufactured to dealers at large market points with instructions to sell at or near a given price. Dealers handling transit cars often have many cars en route or in the railroad yards, which they are pressed to sell, divert, or re consign before demurrage charges accrue. Once demurrage charges begin, a price must be named to effect a sale. In the meantime, however, the millmen may have secured money to continue operations by borrowing from local banks on the cars of lumber shipped.

#### *Carload and Less Than Carload Shipments*

Freight rates on less than carload shipments are much higher than those applying to carloads. This makes the shipping of lumber in less than carload lots direct from the mill to redistributing centers and consuming points impracticable as a common practice, because of the increased transportation cost. While some lumber is shipped in less than carload lots, the practice is not general, particularly in soft woods, and is confined to special stock of which small amounts are necessarily carried in retail yards. This stock is usually obtained from the nearest wholesale yard, and retailers at the same point often club together to make up a carload order and obtain the lower freight rate.

#### *Grades<sup>3</sup>*

The basic grades and names of yard lumber and structural timbers tentatively adopted by the consulting committee follow closely the present standards in use and present customary trade names as follows:

<sup>3</sup> From "Plans of Committees on Lumber Standards," *American Lumberman*, April 21, 1923.



Finish lumber—Finish A, Finish B, Finish C, Finish D (four basic grades).

Board—No. 1 Common, No. 2 Common, No. 3 Common, No. 4 Common, No. 5 Common (five basic grades).

Dimension—No. 1 Common, No. 2 Common, No. 3 Common.

Structural timbers—Timber A, Timber B, Timber C, No. 1 Common, No. 2 Common, No. 3 Common.

For yard lumber, these tentatively comprise nine primary grades, including four upper grades called "finish," and five "common" grades.

#### TYPES OF RETAIL ORGANIZATIONS<sup>4</sup>

The retail trade in the Middle West today contains four types of distributing organizations, the individual yard, the line yard, the farmers' cooperative stock company, and the catalogue house, with over 95% of the lumber distributed through the first three. The business organization of these different types varies widely.

*The Single or Individual Yard.* For simplicity in classification, companies operating one branch yard at a second town or several branches in the same town, as is often done in large cities, have been classed as single yard operators, and are termed "individual dealers" or "individual yards" in this report, as distinguished from line yard companies. In the smaller towns and rural communities these yards are commonly owned and operated by individuals, but in the larger towns and cities partnerships, stock companies, and corporations are the rule.

The individual retail lumber yard is the oldest type of organization, but is not always the most common in the middle western states at the present time. In the eleven states covered by this study individual yards and line yards are about equal in number, the individual yards predominating east and the line yards west of the Mississippi River. The individual yards handle, however, approximately 65% of the volume of lumber distributed, the average volume handled by the individual dealer being considerably greater than that handled by a line yard.

Individual yards are more numerous in large cities, where the average volume of business per yard is greatest. Even in the smaller towns a slightly greater average volume of business is shown by such yards. This may be due to the personal element in their management. The

<sup>4</sup> Taken from Ovid M. Butler, "The Distribution of Softwood Lumber in the Middle West," Contribution from the Forest Service, United States Department of Agriculture, Report No. 116, pp. 6 and 8.



individual dealer in a small town often tends to draw trade by his local affiliations, while the line yard is often considered in the light of a foreign corporation. Furthermore, the individual dealer often extends credit where other organizations do not.

*Line Yard Companies.* Certain organizations maintain a line or chain of lumber yards at different points throughout a given region. Some of the stronger companies in the Middle West operate from 75 to 100 yards. Others maintain but three or four. Companies operating three or more yards have been classed as "line yards" in this report. The smaller lines of yards may be operated by an individual, a partnership, or a stock company; but as a rule the larger lines are well financed corporations which maintain general offices at large lumber-consuming or distributing centers from which the concern's policy is directed. Line yard companies, in some instances, are controlled by or have a direct interest in sawmills, from which they obtain a part of their lumber stocks.

*Farmers' Stock Companies.* The farmers' stock company as a retail lumber distributor is of comparatively recent date. Its competition is as yet insignificant in the retail lumber trade of the Middle West, but is keenly felt in the communities in which such enterprises are located. These yards, however, are on the increase, and in certain regions are becoming more and more an important competitive factor.

Cooperative or stock companies engaged in retailing lumber are restricted almost uniformly to agricultural sections, the movement centering in Iowa and Nebraska, in which there are over 100 farmers' retail yards. The cooperative marketing of grain is especially common in these two states. In the entire region covered, the best records available indicate that there are over 3,000 farmers' cooperative grain companies, approximately 10% of which handle lumber. The extension of the farmers' cooperative movement to the handling of lumber is in some instances a natural outgrowth of their cooperative selling of grain; in other instances it has resulted from the feeling that local yards were charging excessive prices for lumber.

There are two types of farmers' stock companies. One is the strictly cooperative company, in which all or a part of the net earnings are distributed in proportion to the amount of merchandise bought from or sold to members. As a rule, these companies limit the voting power of their members and the amount of stock any member can hold in order to prevent a relatively few members from controlling a majority

of the stock. In most instances such companies sell lumber to non-members as well as to members, distributing the profits on the same basis. The second type of organization is the stock company organized and operated on a profit rather than on a cooperative basis. The principle of both types of organization is to operate on a small margin, thereby furnishing the members or the community with lumber at a reduced price.

When the farmers' companies began to show increased growth they encountered much difficulty in buying lumber stocks. Many regular retail dealers refused to patronize mills which sold lumber to cooperative companies. The companies are still generally opposed by the retail trade, but because of the competition among mills and wholesale dealers to sell lumber they have encountered little difficulty in obtaining adequate stocks during the past four or five years.

*Catalogue Houses.* The catalogue or mail order house is likewise of recent date in the field of retail lumber distribution. Owing to its broad field of potential operations, it has made itself felt both directly and indirectly in the retail lumber trade in the Middle West. Less than 10 such companies are doing a strictly mail order lumber business in the territory studied, although 40 or more companies and mills compete with the retail trade by direct shipments when possible. The amount of lumber shipped into the region by distant mills selling direct to the retail user, however, is insignificant compared with the total amount consumed. In addition, there are a number of companies, specializing in "ready-cut" houses, which sell through catalogue advertising and ship direct from the factory to the consumer.

### ASSOCIATIONS IN THE LUMBER TRADE

#### *Associations of Retailers*<sup>5</sup>

The associations of retailers have been usually limited to intrastate activity. They have frequently endeavored to delimit the territory tributary to each retail yard and to prevent any transgression of the lines by rival shippers. In defining a "legitimate" retail yard they have often "blacklisted" as "unfair" any wholesaler who has sold to the consumer direct or to a yard not classified as "legitimate".

Local retail organizations covering one or more counties have been not uncommon. Before the antitrust laws were rigidly enforced, such associations often divided the rural territory among the towns. Scales

<sup>5</sup> From Wilson Compton, *op. cit.*

of prices were instituted and often strictly observed. In at least one large western city, the retailers jointly fixed prices and deposited a guaranty to "play fair." A hired secretary kept watch. Any member found cutting list prices was heavily fined. This practice, to a large extent, has been broken up by the activities of antitrust investigating committees. The restriction of local competition by price agreements and by the division of territory has existed, in the United States, in all degrees of intensity. Ranging from no restraint to virtual pooling, the competitive conditions in the retail distribution of lumber have varied according to peculiar conditions in the local trade, to the disposition of the dealers, and to the activity of prosecuting officers.

#### *Organizations of Manufacturers*

The power of the manufacturer has extended to every branch of the lumber industry. His control of stumpage has given him a large measure of control over the production of lumber. His assumption of the functions of the wholesaler, especially in the soft wood trade, and his frequent operation of retail "line" yards have greatly strengthened his influence over the distribution of lumber. In the South, but to a much greater extent in the Pacific Northwest, large corporations own great forests of merchantable timber, operate large mills, and ship their lumber in their own schooners to wholesale or retail yards, which they either own or control. They have thus secured the profit at every stage of manufacture and distribution from the stump to the consumer.

Manufacturers have many common interests. Certain forms of joint action have therefore been evolved. Lumber exchanges in both producing and distributing centers, boards of trade in manufacturing regions, and numerous ephemeral organizations have been, for half a century, a part of the mechanism of the industry. They have developed with the growth of interregional commerce in lumber.

#### ADVERTISING<sup>6</sup>

There are three advertising possibilities in the lumber industry:

1. The opportunity for the individual manufacturer with a large output to lift his grade to high standard, familiarize the public with

<sup>6</sup> From an address given by C. C. Parlin of Philadelphia, at the Fourteenth Annual Meeting of the National Lumber Manufacturers Association, at Chicago, May 31-June 1, 1916.



his brand, and get for himself individually a large and growing market at satisfactory prices;

2. The advertising of each individual association to exploit the merit of its particular kind of lumber and thus to obtain on favorable terms a satisfactory portion of the lumber market;

3. The opportunity of this general association to advertise lumber in general, to overcome the prejudice and misconceptions that have grown up, and to inform the people that the supply of timber is sufficient, that good grades can be bought at reasonable prices, and that lumber is the most desirable building material for many of their purposes.

#### *What National Advertising Can Do*

You have a very real need of advertising, and advertising can, in my judgment, be used with sufficient force and over a sufficient period be serviceable to you.

First, it can overcome the misunderstanding which now exists in regard to the scarcity and price of lumber.

Second, it can do much to inform the public in regard to the most advantageous use of lumber, what types and grades of lumber are best suited to particular uses, and that wooden construction can be made safe, economical, and attractive.

Third, it can arouse interest and stimulate construction of those types of buildings to which the use of lumber is peculiarly adapted.

Fourth, at the same time that this advertising is directly appealing to ultimate consumers, it will also attract the notice and arouse the interest of architects and contractors and bring these important factors to a more favorable frame of mind toward your products. Architects and contractors are dependent upon the satisfaction of their patrons. Their professional ethics lead them, if we are correctly informed, to yield to the wishes of their clients whenever the expressed wish is not detrimental to the client. As long as the lumber association allows the substitutes for lumber to have almost a monopoly in the use of advertising to develop the preference of the ultimate consumer, so long must it expect that architects and contractors will reflect that same preference. Direct appeal to architects and contractors is to reach the ultimate consumer. For what their patrons prefer, that will architects and contractors furnish. What their patrons oppose, they can hardly be expected to urge.



Last, but by no means least, the advertising of this association will arouse the interest and stimulate the activity of retail dealers. The retail lumber dealers have been quiescent. In the past, like the manufacturers, they did not have to sell lumber—people came to them to buy. Into this field there came other dealers representing substitutes for lumber. These substitutes had no market; they had to be sold. The manufacturers advertised them to the public and merchandised their advertising with the dealers. The dealers went out to sell because people did not come to buy. They learned the lesson of selling and, having gained momentum, they each year grasp a larger percentage of the market.

The real difficulty in cooperative advertising is not the difficulty with advertising, but with cooperation. The advertising can be made to pay if you will spend sufficient money over a sufficiently long period. The real question is, can you hold together long enough to produce results? Cooperative advertising is ordinarily the outgrowth of necessity. As soon as it is effective and the necessity becomes less acute, too frequently the cooperative advertising ceases until necessity again forces action. In this respect, an individual is better able to maintain a persistent policy until success is attained.

#### OWNERSHIP OF STANDING TIMBER<sup>7</sup>

Paternalistic legislation, and especially land subsidies to the western railroads, have been the basis of the most conspicuous concentration in timber ownership. Of the total privately owned timber in the United States, 11% is owned by 3 corporations (or 23.5% of the total for the Pacific Northwest), 15.6% by 8 holders, 21.96% by 22, 31.6% by 90, and 38.4%—or approximately one-half (48%) of the total in the three great producing regions: the lake states, the southern pine belt and the Pacific Northwest—by 195 holders. Large holdings are more characteristic of the Pacific Northwest than of the lake states or of the South, where railroad land grants have been relatively inconsiderable. Thus, one-half of the privately owned timber in the Pacific Northwest is owned by 38 individuals or corporations; in the southern pine region, by 925, and in the lake states by 147 individual holders.

<sup>7</sup> From Wilson Compton, *op. cit.*

READI-CUT HOUSES<sup>8</sup>

(1) The whole history of the Aladdin Company, it is interesting to note, is the record of changing plans to meet shifting demand. It began originally with a "knockdown" boathouse. As soon as this was placed on the market, the company discovered that what people much preferred was a summer cottage of the same construction, and so a cottage was at once put out. Then it developed that the customer was using his cottage the year 'round, and so the final form was developed of a "Readi-cut" house, for use any time and anywhere. This is the item which has chiefly contributed to the phenomenal success of the Aladdin Company. Since 1909, national advertising has been used, and Aladdin houses are now adding to the domestic bliss of the Fiji Islander, keeping off the rain for the pioneer in Tasmania, and supplying home comfort to people in every other quarter of the globe, though the bulk of the business of course is right here in the U. S. A.

(2) Selling lumber by mail is nothing new. Sears, Roebuck and Company have been doing it successfully for a good many years. The big mail order houses have also sold a good deal of millwork—sash, doors, and the like—by mail, and Sears, Roebuck have done something along the line of selling barns and other small buildings complete, these being shipped in sections.

What is actually sold is the plan for the house, plus the entire "cutting bill"—all the lumber that goes into it, dressed and cut to size and ready to nail together. In other words, it is a remarkably effective plan for selling lumber, since it creates the demand and supplies it, all at one stroke.

The theory on which Readi-Cut houses are marketed is that waste and labor are excessive when each house is "made to order" on the ground. The carpenter must cut the boards to size by hand, and, though stock lumber sizes are arranged to enable this to be done with as little waste as possible, there is, of course, a considerable amount. Substituting for this the plan of making up one design and then cutting the lumber for it on big power-driven machines not only reduces the labor cost tremendously, but, with the wide range of sizes provided, it enables the waste to be worked up to advantage. In shipping, a saving is made through the elimination of freight on the waste, and

<sup>8</sup> From *Printers' Ink Weekly*: (1) January 10, 1918; (2) April 29, 1915; (3) January 10, 1918; (4) April 29, 1915.

the builder need only have a reliable carpenter to follow the plans and put the material together.

Another feature of the Aladdin system is that it furnishes not only the lumber for the building job, but the other materials as well, including hardware, plumbing, heating, and so forth. The foundation materials, however, are purchased on the ground, as it is pointed out that brick, stone, and cement are produced in every section, and that nothing would be gained by shipping them from Bay City.

In the current advertising, 24-hour shipment is guaranteed. Time is saved in putting up a home. The fact that the material is shipped promptly and that the time of erection is but one-third of that required when all the sawing and fitting must be done on the ground is responsible for this.

The house business has been supplemented by the sale of additions, which are designed and shipped just like the other buildings. Ready-Cut barns, poultry houses, milk houses, and other farm buildings are included in the line, which has also been expanded by the manufacture of furniture.

(3) It is interesting to know that the company finds its catalogue to be the first and last gun in the sales battery, that the general advertising done is useful primarily for the purpose of getting the names of people to whom the catalogue may go. The catalogue of houses lays special stress upon the fact that an Aladdin House is not a portable one. People seem prone to jump to this conclusion, and to counteract this tendency the phrase "a life-time home" is used in the catalogue to give the requisite impression of permanence.

The new field which the company has developed recently, when the war put a damper on homemaking, is, briefly, supplying its houses on a large scale for use in conjunction with new industrial plants.

(4) The average lumberman does not appear to be greatly disturbed by the development. It is probably the country retailer who has been worst hurt. In the big cities the mail order people haven't much chance to compete, because of the facilities provided by architects, contractors and others. But in the rural section, where it is difficult to secure architectural services, the mail order scheme really does something worth while, and, until the local dealer learns how to provide a similar service, he is going to lose business.

## XXXII

### CEMENT

CEMENT in itself is nothing more than limestone or marl mixed with clay, shale, or slag in the proportion of about three to one. These materials are dried and ground before mixing; dried, reground and burned together at intense heat; ground again and a small percentage of gypsum added. The finished product then is stored in vast bins prior to shipping in sacks or in bulk for making concrete.<sup>1</sup>

"Portland cement" does not mean a special brand. It is a name comparable to "Irish potatoes" or "sterling silver."

In 1890, there were 16 plants in the United States producing a total of 335,500 barrels per annum, or an average per plant of about 21,000 barrels per annum. In 1900, the number of plants has increased to 50, the total production to 8,482,000 barrels, and the average plant production to 175,000 barrels per annum. In 1922, the number of plants was 118, in 27 states; the production, 114,789,984 barrels, and the average per plant 972,000 barrels per annum.<sup>2</sup>

#### *Method of Distribution*<sup>3</sup>

In few other industries is the route between producer and consumer as direct and short as it is in this industry. Scarcely any other industry combines the threefold advantages to the consumer of large-scale and widely distributed production, nearby sources of supply, and direct sales from manufacturer to retailer.

The manufacture of cement literally is spread over the entire country. Cement is produced at approximately 130 active plants throughout the United States. Production is not concentrated in any one place. That this factor materially benefits the consumers of cement becomes even more apparent when it is realized, first, that freight charges, on account

<sup>1</sup> From *Chicago Commerce*, April 9, 1921.

<sup>2</sup> From F. W. Kelley (president, Portland Cement Association), "Cement Is the Magic of Concrete," address published through courtesy of American Concrete Association by Portland Cement Association, *Proceedings*, Vol. 20, 1924.

<sup>3</sup> From Morris Kind, *How Portland Cement Is Distributed*, published by Hercules Cement Corporation, Philadelphia.



of the bulk and weight of the commodity itself, amount to about 20% of the value of the product to the consumer and, second, that Portland cement is standardized as to quality, no manufacturer commanding on account of quality a higher price for his brand than the price of any other brand.

Cement is sold by the manufacturer directly to retailers, the local building supply dealers. These retailers are located in thousands of cities and small towns. Each manufacturer has a clientele of dealers, although dealers do not necessarily confine their shelves to one manufacturer's brand. In order to keep his product moving, a manufacturer must retain this clientele.

In the early days of the development of the Portland cement industry in the United States, Portland cement was produced in substantial quantity only in the so-called Lehigh Valley, 25 or 30 miles long, and a few miles wide, in eastern Pennsylvania and western New Jersey. Users of the commodity in the West were obliged to pay not only the going price at the mill, but the freight charges necessary to have it transported from the Lehigh Valley mills to destination. When there were practically no mills in the country except in the Lehigh Valley district, the price quoted was arrived at by adding the freight charge to the price at the mill located in that district.

At that time, too, many of the manufacturers sold their product through large distributors who, in turn, sold it to dealers. This was probably because of the fact that, prior to the development of cement production in this country, imported cement had been handled in that way by importers. Furthermore, until 1907 railroad rates were more or less unstable and this situation, too, had its influence on the marketing methods then in vogue.

In the ten or fifteen years following 1900, Portland cement manufacturing plants were built in nearly every section of the country. As a result of the enormous development of the productive capacity and the widespread location of manufacturing plants, a change in these early marketing methods became inevitable. As mills developed in the western and southern parts of the country and as production centers were established in many different localities, these newer mills, having a substantial productive capacity, established prices at their own mills, whence purchasers could obtain cement by paying their mill price plus actual freight charges to destination.

This growth and spread of producing plants brought about intense

competition in the territories previously served practically exclusively by the Lehigh Valley mills. The newer producers, not having the sales agencies then in use by the Lehigh Valley producers, found it advisable, in order to market their product economically, to go directly to the retail dealers.

This development caused a general change in the selling practice, so that the first decade of the present century saw most of the cement manufacturers, wherever located, seeking markets among retail dealers and selling direct to them. Mills passing their product through three to five hands were in no position to compete with those manufacturers who sold with one handling.

Purchasers of cement know that all brands of cement must meet certain standard specifications. The product of one manufacturer is by specification commercially identical with the like product of any other manufacturer, and Portland cement produced by one manufacturer does not command because of its quality a higher or lower price than the Portland cement produced by others.

The large number of manufacturing plants and producing centers, their varying distances from different markets, the complexity of freight tariff schedules, the layman's lack of familiarity with rates from all possible sources to his siding, and the difficulties he would encounter in trying to figure out his cost if he bought f.o.b. any mill, all combine to make f.o.b. delivered prices a necessary method of distributing cement from the buyers' standpoint. The result has been unavoidable that under conditions commonly and generally prevailing cement is sold f.o.b. point of delivery.

#### *Seasonal Trade<sup>4</sup>*

Both the manufacturer and the public have been inconvenienced heretofore by the seasonal character of cement construction. As storage of cement, on account of its nature, requires extremely well built and expensive storage houses, distributors have provided themselves with only limited storage facilities. This results in a heavy concentration of cement shipments in the summer months when outdoor work is more easily carried on.

The remedy for this congestion is a wider spread of the construction period, with earlier spring and later fall and winter work and a more even distribution of purchases by dealers. The educational work

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<sup>4</sup> From "The Cement Industry in 1923," *The Annalist*, January 8, 1923.

of the Portland Cement Association in connection with safe methods of carrying winter construction will result very advantageously to the public, in that the summer peak of shipments may be kept from rising higher, thus avoiding higher prices and inability to meet the summer demand because of the limitations of transportation.

It has been misstated that the cement companies limit the amount a purchaser may buy. A buyer may purchase all the cement that he wishes at the current price, provided he will accept delivery at once or within a very short period. In general, cement companies will not make a contract for the future delivery of cement at the price then prevailing. A notable exception is made to this policy in order to stabilize building cost; in that, a prospective builder or contractor may know when he starts a project what his cement will cost him throughout the life of that project; that is, a contract may be made at the present current price for future delivery for use on a specific piece of work. This is done with the expectation and in accordance with the terms of the contract that the cement so contracted for shall be used only in that work, so that none of it may get into speculative hands to the detriment of the public. Unfortunately, abuses have entered into these contracts for specific work. Frequently purchasers, either through lack of information of the exact requirements of the prospective work or through an anxiety to be amply and safely covered on deliveries, sometimes makes these contracts for an amount considerably in excess of the requirements of the work and even duplicate such contracts with more than one cement company. This introduces an element of uncertainty for the cement companies in that, with the multiplication of a great number of such cases, a company will sometimes consider that its product, or a large proportion of it has been sold, when, in fact, a large proportion of the amount of cement on contract for specific work will not be called for. If, however, there has been an increase in the cost of manufacture, with a resulting increase in price, purchasers holding these overestimated or duplicate contracts at the former low price will, in many instances, order out the cement for other uses than the work specified and in violation of the terms of the contract. This means of speculation is guarded against as carefully as possible by the individual companies, but efforts are materially handicapped by the inability of the cement companies under government restrictions to cooperate by means of a comparison of cement contracts filed with the several companies for the purpose of detecting duplicates.



*Standardization*<sup>5</sup>

On June 28, 1922, the Portland Cement Association, representing a large part of the manufacturers of Portland cement in the United States, adopted a by-law making membership in the association contingent upon the member's product meeting the requirements of the standard specification.

At the present time, the standard specification for cement is almost universally used in this country. Thus we now have a nation-wide quality standard for Portland cement voluntarily accepted by both consumers and producers. It is the highest standard for cement in the world and has had an important effect in promoting, extending, and improving the use of concrete in this country.

*Cement Trusts*<sup>6</sup>

The government charges that the defendants, through the activities of the association, control prices and production of cement within the territorial area served by the several defendants in the following manner:

1. By the use of "specific job contracts" for future delivery of cement, accompanied by a system of reports and trade espionage having as its objective the restriction of deliveries of cement under those contracts;
2. By compiling and distributing, among the members, freight rate books which give the rate of freight from arbitrary basing points to numerous points of delivery within the territorial area served by the several defendants;
3. By exchange of information concerning credits;
4. By activities of the association at its meetings.

The government asserts that uniformity of prices and limitation of production are necessary results of these activities of the defendants. It does not, however, charge any agreement or understanding between the defendants placing limitations on either prices or production. The evidence does not establish that prices were excessive or unreasonable, and the District Court found "as compared with the rise of prices of other basic commodities, it is possible to say that the quotations of cement advanced less than others."

<sup>5</sup>From F. W. Kelley (president, Portland Cement Association), "Standards of Quality in the Cement Industry." Used by permission of the Portland Cement Association.

<sup>6</sup>45 Supreme Court Reporter 586.



There was substantial uniformity of trade practices in the cement trade in the following respects:

1. The sale of cement by specific job contracts for future delivery;
2. The selling of cement f.o.b. delivery;
3. Using freight basing points in the quotation of prices;
4. Including in all quotations for sale of cement, freight rate from a basing point to the place of delivery;
5. Charging purchasers of cement for bags in which the product is shipped and allowing credit for bags returned to the manufacturers in good condition.

The specific job contract is a form of contract in common use by manufacturers of cement whereby cement is sold for future delivery for use in a specific piece of construction which is described in the contract. These contracts have, by universal practice, been treated by cement manufacturers as, in effect, free options customarily made and acted upon on the understanding that the purchaser is to pay nothing until after the delivery of the cement to him; that he is not obligated in any event to take the cement contracted unless he chooses to; that he is not held to the price named in the contract in the event of a decline in the market price; whereas the manufacturer may be held to the contract price if the market advances and may be held for the delivery of the full amount of cement required for the completion of the particular piece of construction described in the contract. The practical effect and operation of the specific job contract, therefore, is to enable contractors who are bidding upon construction work to secure a call or option for the cement required for the completion of that particular job at a price which may not be increased, but may be reduced if the market declines. It enables contractors to bid for future construction work with the assurance that the requisite cement will be available at a definitely ascertained maximum price.

The activities of the defendants complained of are directed toward securing this information and communicating it to members, and thus placing them in a position to prevent contractors from securing future deliveries of cement which they are not entitled to receive under their specific job contracts, and which experience shows they endeavor to procure especially in a rising market.

The association also employs "checkers," whose business it is, by actual inspection and inquiry, to ascertain, so far as possible, the

amount of cement required for specific jobs referred to in specific job contracts, and whether cement shipped under specific job contracts is actually used or required for use under such contracts.

The custom in the cement trade of selling cement at a delivered price, which includes the mill price, the price of bags, and freight charges, was an established trade practice before the organization of the defendant association. The basing points from which freight rates were calculated were not selected by the association, but were the same as those appearing in prior books published by individuals before the publication of the association freight rate book. The basing points are points of actual shipment from which the larger proportion of the cement in a given locality in which cement manufactured is actually shipped. The rates published are the actual rates omitting fractions of cents between the basing points and actual points of delivery.

The larger proportion of the product of the defendants is distributed through dealers, and prices to dealers are not reported to or through the association. It appears to be undisputed that there were frequent changes in price, and uniformity has resulted, not from maintaining the price at fixed levels, but from the prompt meeting of changes in prices by competing sellers.

Such activities are not in themselves unlawful restraints upon commerce and are not prohibited by the Sherman Act. The judgment of the District Court is reversed.

#### *Cement Trusts—England<sup>7</sup>*

Previous to the year 1900, there appears to have existed little if any organization in the cement industry in this country. Although some few public companies were in being, the manufacture was generally in the hands of private firms. The formation in 1900 of the Associated Portland Cement Manufacturers, Limited, constituted the first successful attempt at combination, and the organization was, in effect, an amalgamation by purchase of a number of independent works, which were all producing cement to comply with various specifications.

This company was not apparently successful in coping with the many difficulties then being encountered by cement manufacturers in this country, this being due no doubt, to some extent, to the serious depression in the industry from 1905 to 1911.

<sup>7</sup> From reports from commissioners, inspectors, and others; Parliament of Great Britain, February 10, 1920 to December 23, 1920.

Voluntary schedules of standard prices were introduced by certain bodies as an attempt to stabilize prices over restricted areas and to end the ruinous competition between the manufacturers, which had brought many firms to the verge of bankruptcy.

The next stage of organization was the promotion, in 1912, of the British Portland Cement Manufacturers, Limited, by the Associated Portland Cement Manufacturers, Limited. A number of independent firms then trading outside the Associated company were absorbed in the new British company, and the operation resulted in 75% of the total productive capacity of this country passing into the control of these two companies, which together are now known in the trade as "the combine."

A further development of the organization of the industry—but in another direction—occurred in 1918, when the Cement Makers' Federation was formed, primarily for the purpose of fixing minimum prices in various areas and settling trading conditions, by amalgamating certain local "alliances" then existing. This body, though of but recent standing, appears to have stabilized prices and trading conditions to an appreciable extent.

In this particular connection our investigation has proved that combines or trusts do exist. On the manufacturing side, two methods of association have taken place:

1. Cement manufacturers have amalgamated themselves into two powerful producing companies, the Associated Portland Cement Manufacturers, Ltd., and The British Portland Cement Manufacturers, Ltd., which companies, through their respective directorates, are interlocked. These companies, it is estimated, are jointly responsible for 75% of the total cement production of the country.

2. In order to fix minimum selling prices, the majority of the manufacturers (including the two chief companies mentioned above) have associated themselves in the Cement Makers' Federation, the members of which control the production of 90% of the cement produced in the country.

Further, in the retail distribution of cement, the rebate allowed to the merchants by the manufacturers is governed by the Cement Makers' Federation, while in the London area there is the Builders Merchants' Alliance, Limited. This latter body, in conjunction with the manufacturers, draws up and issues minimum retail price lists.



A condition of membership is that the prices in the prepared schedules should be maintained by all the merchants in the Alliance, but we are given to understand that no monetary or other penalties are imposed upon members to ensure the due observation of these prices.

The first fact to be recorded is that the prices in the schedules are delivered prices and include the railway freightage to the station of delivery. Subject to any clauses that may be inserted in government contracts, the purchaser is able to trade with either a manufacturer or a merchant, and has the option of quotation for cement:

1. Delivered railway station.
2. Delivered alongside wharf.
3. Delivered site.

The Federation contends that, having regard to the fact that the manufacture of cement is confined to certain specific areas, and to the present shortage and pressing demand, the system of fixed delivered prices restrains competition between purchasers and prevents increases in the prices which would result from that competition; and further, it regulates the distribution of available supplies.

As we have previously stated, the rebate allowed to the merchant by the manufacturer is fixed by the Cement Makers' Federation. The rebate, which is in the form of a percentage of the minimum selling price, is estimated to be the merchants' margin of profit, and is uniform to all areas.

To obtain the full benefit of this trade rebate the merchant must enter into an agreement with the manufacturer undertaking:

1. To buy only from members of the Cement Makers' Federation.
2. To resell at not less than schedule prices and to fulfill all other terms of the Cement Makers' Federation as to discounts, packages, etc.

No rebate is allowed to consumers buying in large quantities for use and not for sale, other than 5% to importing contractors for minimum shipments of 100 tons. The builder or contractor purchasing direct from the producer thus has to pay the manufacturer a higher price than does the merchant, even though the merchant may deal in comparatively insignificant quantities of material.

It was submitted to us that to make any allowance to the large buyer purchasing direct would operate unfairly against the builders' merchant, inasmuch as buyers would be induced to deal with the producer when-



ever it paid them to do so, and the merchant would, in consequence, be deprived of a considerable proportion of his trade.

### CEMENT PRICES<sup>8</sup>

#### *Why Cement Prices Are Uniform*

The fact that cement usually is sold at a uniform price at any one time in any one market is a matter many people cannot understand. It is even argued that this fact tends to prove that cement companies operating in the same field do not enter into competition, but work in combination. The reason for this, however, is very simple when the nature of the product is examined.

Portland cement is probably the only manufactured article in the United States which has been absolutely standardized. Years ago, to insure structural safety of great works and the safety of many people, the United States Government, the American Society of Civil Engineers, and the American Society for Testing Materials named a special committee. This body, in a labor lasting many years, set the standard for this material. This standard fixes the chemical composition, specific gravity, fineness, soundness, time of setting, tensile strength, and all other qualities. Every Portland cement must comply with that standard. Hence all are exactly alike.

#### *How Delivered Prices Are Developed*

To understand the uniform pricing of cement in all markets and the reasons for it, it must be held in mind that this product is usually sold f.o.b. the delivery point. The mass of men who buy and use cement know nothing about freight rates. Not one in a thousand could figure a complex freight rate schedule so as to know what his cement would cost him at his home railway station if bought at a mill price. For these and other reasons, cement buyers generally do not desire to buy at the mill but purchase at the point of delivery. So the manufacturers, to simplify business for users, have always carried the burden of figuring the freight and, of course, charged it in when making delivered prices.

#### *Future Delivery Contracts*

In cement merchandising methods, several unique features have been developed. One of these pertains to future delivery contracts. Men

<sup>8</sup> From John E. McEldowney (editor, *Real Estate News*), "Vital Facts on Portland Cement," Chicago, 1922.

who contract to carry out vast improvement projects, requiring large quantities of cement to be delivered at various times as the work goes ahead, must needs protect themselves from loss by knowing in advance of starting the work what their cement for the job will cost them. They do so by a contract for future delivery, whereby the cement maker agrees, perhaps three years in advance, to deliver to the contractor the cement he will then need, as estimated by engineer or architect.

These future delivery contracts differ from the ordinary contract in commerce in this: They are binding, in practice, only upon the manufacturer. There are no margins posted, no advance payments on account. For the buyer, it is like purchasing "futures" on the stock exchange without putting up a cent. If when the time of delivery comes the buyer wants the cement contracted for, he takes it; if not, the manufacturer "holds the bag."

In making these future contracts, it was for years a practice of many buyers to contract for cement for the same piece of work with each of two, three, or more manufacturers. Then, at delivery time, if the price was up 10 cents or more a barrel over contract price, the buyer would call on each of the manufacturers to deliver his "futures" and frequently sell them in the open market at the profit he could make. So it happened that oftentimes a man with 10,000-barrel contracts with a number of mills could "scalp" the market for \$1,000 or more each on his contracts. And if the market was "off" or stationary, the contract holder would cancel his excess contracts without loss.

This system, naturally, kept the industry in turmoil. No cement mill manager could ever know how much solid business he had on his books for future delivery. He could not possibly gauge the market or know whether to increase or cut down activity. He could not know whether his mill storage space would be glutted with cancelled orders or his bins be bare of supply. This, plainly, is a perilous state when you are doing business on a scale of millions and with an industry where steady intake and outgo of product is vital to successful operation.

So it came about that the manufacturers of cement, in order to remove this peril, were forced to require each seeker of a future delivery contract to inform them what job or project each "future delivery" contract covered.

#### COOPERATIVE ORGANIZATION<sup>9</sup>

The great variety of uses for cement, the expenditure of effort and

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<sup>9</sup> From National City Bank of New York, *Letter*, March, 1927.

money required for acquainting the public with its superiority for such uses, and the importance to the entire industry of having all concrete work show uniform quality, have caused manufacturers to form the Portland Cement Association, which has built a fine building in Chicago for its headquarters. A research laboratory is maintained there with a staff of 40 persons. Besides the headquarters, the association maintains 31 district offices in different parts of the country, with staffs engaged in promoting the consumption of cement.

This cooperation is favored by the fact that all cement is now made under common specifications, agreed to after a long series of experiments participated in by the American Society for Testing Materials and the United States Bureau of Standards. Competition as to quality, therefore, has practically disappeared, as all manufacturers use these specifications.

The activities of the association and the fact that transportation charges are so important a factor in determining the distribution of cement have caused it to be commonly said that the industry was in a combination to control prices, but there is plenty of evidence that competition has been very keen and that prices have afforded very moderate profits. Indeed, notwithstanding the rapidity with which consumption has increased, the capacity of the industry most of the time has kept well ahead, with the result that the mills have been struggling for quantity production.

The multiplication of mills has been constantly stimulated by the fact that freight charges are so large a percentage of the selling price of the product. As consumption has increased in different localities, this has afforded an inducement for the building of local mills, keeping the industry much of the time overbuilt.

This suggests a sound economic reason for the present drift toward combinations of cement mills similar to what we have seen in many other industries. Obviously, the proportionate overhead saving is greater in the cement industry. Such combinations of mills strategically located are also important for the saving of transportation charges. The percentage of mill price is practically never less than 10% and averages about 20%. The saving in avoidance of competitive "cross shipments" may mean the difference between a profit and a loss.

At present, the cement business seems likely to afford another illustration of the tendency to overdo every growing industry. Of late, the southeastern states have been leading in this expansion. All this territory is competitive ground for foreign cement, of which the

total importations into this country in 1925 were over 3,500,000 barrels. There is no import duty on cement.

#### IMPORTS OF CEMENT<sup>10</sup>

Considered in the light of annual production, foreign competition in domestic markets seems negligible, since imports amount to less than 2% of the domestic output. But if we separate the Pacific Coast from the rest of the country, the situation changes. More than half the cement imported by the United States comes into Pacific ports. California's cement imports in the first nine months of the current year represented 63% of all Pacific Coast imports. Most of the cement, of varying quality, comes from Belgium, duty free; a smaller portion, usually of good quality, is imported from Norway.

Some of the foreign cement comes into Pacific ports as ballast and is dumped on the market at prices considerably below the prevailing prices of the domestic product. But many city, county, and state governments specify domestic cement for public works, and the result is that little of the imported commodity is used in such enterprises. The city of Los Angeles, for instance, after a series of tests, has barred the use of foreign cement in public construction work; foreign cement must stand a two-year test in private construction before the ban may be lifted.

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<sup>10</sup> From Mercantile Trust Company, *Review of the Pacific*, December, 1925.



## XXXIII

### PETROLEUM

#### TRANSPORTATION

##### *Pipe Lines*<sup>1</sup>

ONE of the remarkable and impressive features of the petroleum industry is the fact that the crude product is transported through a system of pipe lines that connect the points of production with refineries, markets, and seaports. This method of handling is natural and inevitable with a liquid product consumed in bulk, as evidenced by a somewhat analogous method of transportation adopted for the municipal water supply. While petroleum shares with coal the main responsibility for energizing the mechanical activities of the country, it is interesting to note that crude oil, unlike raw coal, imposes normally no appreciable burden upon the railroads.

The pipe lines of the United States, comprising those of the subsidiary companies of the Standard Oil and a number of independent companies, aggregate thousands of miles in length and form a network over much of the country. They consist of trunk lines, the longest of which connects Oklahoma with the Atlantic seaboard by way of Illinois, and gathering lines leading into the main channels. The whole system is comparable to the arteries and veins of the human body.

The pipes vary in diameter from 2 to 12 inches, but 6 to 10 inches represent the common sizes. The piping is made of iron plate and is ordinarily placed below the surface of the ground. At intervals of from 15 to 30 miles, according to the viscosity of the oil, are pumping stations, where powerful pumps seize the spent oil and force it forward with renewed vigor. In the case of heavy, viscous oils, such as those of California, it becomes necessary to heat the product at each pumping station to facilitate its progress. Unlike a railroad, the pipe line facilities of the country are ample to handle the normal distribution of the current production.

<sup>1</sup> From Chester C. Gilbert and Joseph E. Pogue (Division of Mineral Technology, United States National Museum), *Petroleum: A Resource Interpretation*, Smithsonian Institution Bulletin No. 102, 1918.

Some crude petroleum is transported in tank cars, but most of the 60,000 tank cars in operation in this country are engaged in moving petroleum products—gasoline, kerosene, and fuel oil chiefly. For transportation by sea, steel tankers and towing barges, fitted with non-communicating compartments, are employed for both crude petroleum and its bulk products. The development of the tank steamer has been an important factor in building up an important foreign trade in petroleum products, is responsible for a considerable coastwise movement of crude and fuel oil, and has opened the oil fields of Mexico to the United States and other markets.

### *Collecting and Transporting Crude*

The crude is pumped into small flow tanks, and from there run either to a pipe line station or to a "tank farm." The problem of saving the flow of gushing wells at one time presented serious difficulties; and one of the most valuable of the early inventions was the clay underground tank. The petroleum is directed into a sump hole lined (wherever possible) with clay, which because of its close texture makes an absolutely leakage proof reservoir. From the sump hole it is pumped to the tanks, but this is usually but a temporary shift. When the gushing process ceases, pumps are installed and direct pipe connection with the storage tanks is established. The modern pump which lifts the oil from the oil bearing strata to the surface is a very powerful mechanism. One of these will handle a column of oil as high as four thousand feet, and deliver it into pipes. Not infrequently the walking beam used in the drilling is brought into commission for pumping purposes. It is rather a cumbersome system, but has this advantage, that it enables the operator to begin production immediately and realize cash for his output.

In what is known as the field tank, situated adjacent to the derricks and pumps, the oil operator deposits his daily production, which is later pumped to the "tank farm" for shipment. The capacity of a tank is known to a gallon. So many inches or feet of petroleum in a tank represent so many barrels. The gauger drops a steel tape into the oil until it touches bottom, and the location of the oil showing on this steel is the measure of the contents. Then the valves are opened and a portion of the contents flows away to the pump station or "tank farm." A second measurement is taken, and the difference between the first and second measurement reveals the quantity of oil

drawn off. The gauger then issues to the producer a credit certificate, or "run ticket," representing the quantity of the crude received at that particular time.

There are other complications, however, before the oil reaches the market. If the wells are gaseous in any considerable degree, the oil must pass through a gas separator before it enters the tanks. The gauger must measure and draw off any water present, which, owing to the proverbial incompatibility of oil and water, is not difficult, and in calculating the amount of the credit slip he sees to it that no water is inadvertently paid for.

With gas and water eliminated, the crude oil is pumped from the "field tank" to the "tank farm," a collection of great containers built near the oil fields to take care of the output of wells which produce oil faster than the pipe lines carry it to the refineries. These containers are built of sheet steel and have a standard capacity of about 55,000 barrels in most cases, although some are constructed to contain 80,000 barrels. They are riveted and must be absolutely proof against leakage. Incidentally, it may be mentioned that one of the difficulties which human ingenuity cannot combat is the tendency of lightning to become attracted by these steel constructions on the open prairies. Great havoc and waste sometimes result. Another convulsion of nature also dreaded by the oil man of the Middle West is the cyclone, which at times is especially disastrous to derricks and pumping plants.

There is but one more stage through which the crude petroleum passes on its way to the refinery, but this stage is so important and has been such a vital factor in the organization of the American oil industry, as well as in those of other countries which have emulated the system, that it demands extended reference. It is the pipe line system, which has done more to make the products of petroleum available to all at more reasonable prices than any other innovation in connection with the industry. It is in reality like the waterworks system which reaches under the streets of modern towns and cities, but extending beneath the surface of millions of square miles of territory.

#### *Oil Tankers<sup>2</sup>*

For ocean transport, the oil tanker represents the most efficient agency for carrying petroleum, and of recent years, with the development

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<sup>2</sup> From Joseph E. Pogue, *The Economics of Petroleum*, New York, John Wiley & Sons, Inc., 1921.

of the oil fields of the Gulf Coast and Mexico, a growing number of oil tankers have come into use.

The bulk of the international crude oil movement is between Mexico and the United States. In 1920, roughly 180 million barrels of crude petroleum were moved overseas, of which 106 million barrels, or 59%, represented shipments from Mexico to this country.

### *Tank Cars*

Tank cars are mainly employed for the transportation of petroleum products, although a small percentage of the crude petroleum supply is handled in this manner. Tank cars of some kind have been in use in the petroleum industry for over 50 years. At the outset they were tub cars, consisting of a wooden vat or set of vats on a flat car. Soon it became necessary to devise more efficient units, and the forerunner of the modern tank car was developed, consisting of a steel cylinder strapped to a flat car.

Originally, the tank car was developed for carrying crude petroleum from the wells to the refinery, the refined products being shipped in barrels. The pipe line, however, has modernly come to care for the transportation of a growing proportion of the crude petroleum, while the mounting volume of petroleum products to be moved has called for increasing numbers of tank cars for this purpose.

The majority of the tank cars in use are owned by oil companies or by separate tank car corporations, a small proportion only being controlled by the railroads themselves.

## REFINING

Crude petroleum may be burned as fuel, and nearly a fifth of the domestic consumption is utilized in this way. But most of the petroleum is manufactured into a series of products which have wider usefulness and higher value than the crude oil, and it is upon this dominant part that the petroleum refining industry depends.

At the present time, petroleum yields, when completely refined, four main products—gasoline, kerosene, fuel oil, and lubricating oil—and a large number of by-products, of which benzine, vaseline, paraffin, road oil, asphalt, and petroleum coke are well known examples. Most of these products in turn may be broken up into other substances, each the starting point of further refinements.



The refining of petroleum, requiring elaborate plants, is by nature a large-scale enterprise; hence such activities in the main have naturally come under the control of a few large organizations. While several hundred individual refineries are in operation, the bulk of the output is due to the efforts of fewer than ten companies. The refining of petroleum, therefore, is largely an integrated activity, in close alliance with transportation of crude, on the one hand, and distribution of refined products on the other. The development of pipe line transportation has permitted the establishment of refineries at points distant from oil fields but convenient to centers of consumption and to seaports. Hence one of the largest refineries in the world is at Bayonne, New Jersey, consuming oil from the interior of the country.

### DISTRIBUTION

From the refineries the gasoline, kerosene, fuel oil, lubricating oil, and other petroleum products are sent forth to supply the needs of surrounding territory, while refineries near seaboard furnish heavy contributions to foreign trade. As distribution is a diverging process, and, moreover, the crude petroleum is broken into numerous products requiring separate handling, the pipe line is not broadly adapted to this diverse haulage. Railroad tank cars, therefore, receive the bulkier products and carry them to distributing depots, where storage tanks release the railroad carriers and supply tank wagons that radiate to fill the local needs.

The arrangement whereby a foreign trade has been built up and sustained are no less elaborate. Fleets of tank steamers and freighters carry the products in bulk or in suitable containers to all parts of the world. Fuel oil, gasoline, and lubricants go in greater measure to industrial countries, but kerosene penetrates to every corner of the globe, a system of depots and distributing lines adapting the product to the needs of the most out-of-the-way regions.

#### *Development of Oil Marketing*

The production of crude petroleum has grown mainly on the basis of individual enterprise in the drilling and operation of wells under highly competitive conditions, while the activities having to do with transportation, refining, and marketing have tended toward integration under the direction of large-unit, corporate enterprises.

At the end of the first decade of the present century, a minor part of the output of petroleum products came from a large number of independent companies, and the remainder from the Standard Oil Company of New Jersey, which operated throughout the United States as a single unit and under the supervision of one executive. The marketing of petroleum products was then carried on by the Standard Oil Company, by the independent companies affiliated with refining, and by oil jobbers who bought directly from the independent refiners.

In 1911, after long and sensational litigation, the Standard Oil Company of New Jersey was dissolved by judgment of the United States Supreme Court, and the original organization was broken up into 33 separate and independent units, occupying territories with geographic rather than commercial boundaries and requiring for each unit a separate and independent administration.

#### *Marketing of Gasoline*

Gasoline is marketed by the so-called Standard companies, by the independents, and by jobbers. Roughly, two-thirds of the gasoline distributed in the United States is marketed by the Standard companies, which purchase part of this quantity from the independent refiners, since the former group refines only about one-half of the oil run to stills in this country.

The Standard group has developed a highly perfected system of distribution, involving the direct placement of the product in the hands of the consumer through the medium of service stations, tank wagon delivery, and tank stations in sparsely settled districts.

The large independent refineries market much of their gasoline through service stations and tank wagon delivery, but, as the development of the requisite marketing organization and equipment is a large-scale enterprise demanding extensive investment, the smaller independents, as well as the larger ones in part, sell their product to the Standard companies and to jobbing organizations operating independently in localized territories. The jobber, indeed, is somewhat complementary to the small skimming plant; hence jobbing is most active in the Middle West, where the products of the small refinery are available in greatest abundance.

Before the Standard Oil combination was dissolved in 1911, the whole area of the United States was divided among its eleven marketing companies, and each one operated almost exclusively in its assigned

field. After the dissolution, the existing marketing arrangements by which there was this division of territory remained undisturbed, and accordingly the various Standard companies today operate separately in the original territories without substantial change.

### *Filling Stations*<sup>3</sup>

(1) In 1923, one of the important oil companies determined that every new filling station must include in its construction complete facilities for conveniences for the motoring public. At once has followed a most unexpected result. Motorists no longer hop into their cars as soon as the tank has been refilled with gas; they go within the building to wash off the grime of handling the hose or the cap of the reservoir. More vital yet, while the filling is in progress, other members of the party saunter within, invited by the assurance of comfort.

That such places should carry automobile accessories is natural. Spark plugs and tire valves are commonly to be found; anti-freeze mixtures and radiator cement run a close second in popularity; other items are gas tank caps, pliers, tires for Ford wheels, patches, rim lugs, tape, polish, special soaps, tail lights, windshield cleaners, tools. It is, however, in non-automotive supplies that we are especially interested.

In Cleveland, as illustration of the extent of this development, one of the leading oil companies has embarked on a unit system of filling stations. Each of its new stations is being constructed in three units, occupying, as a rule, a whole city lot rather than only the frontage. The filling station itself is central. This is flanked by an auto-wash station, with limited storage space, which offers a service of washing and lubricating cars. The third unit is called the "barbecue"—patterned after the genuine barbecue of Tennessee—which is a small restaurant and through which delicatessen supplies are retailed. Without advertising, these triple unit filling stations have become an outstanding success in Cleveland.

(2) Filling stations group themselves into three classes. First is the station owned and operated by the refining company or some "oil" company, which sells, usually, only company products through employed attendants. Often these attendants are forbidden to handle side lines. Stations of this class are found primarily in cities.

A second grouping consists of company-leased stations. These are

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<sup>3</sup> From H. A. Haring, (1) "Despise Not the Filling Station," *Advertising and Selling Fortnightly*, April 21, 1926; (2) "Merchandise for the Filling Station," *idem*, May 5, 1926.



constructed by the oil companies to be leased for flat rental to others. The tenant is obliged to handle only company brands of gasoline and lubricants. These products are on a consignment basis, charged to the tenant only as sold, with a regauging of stock on hand whenever prices change. The tenant of a leased station is thus protected from gambling in price fluctuations. Leased stations are usually distinguished by the design or the color of the gasoline pump—those of the Standard Oil Company, for example, being their “white pumps.” The lessee is permitted to handle automobile accessories and other goods at will.

The third class of stations consists of those privately owned. To them the refiners sell gasoline and oil outright. The price is that prevailing on day of delivery, subject only to protection for three or four days if tank wagon prices advance within the agreed time. Should tank wagon prices recede, the station owner benefits. Filling stations of this group are encouraged to display signs and boards with the name of the refining company, their pumps are sufficiently different from those of the company-owned and the company-leased stations to catch the eye of knowing ones. For the Standard Oil Company, to continue the same example, red pumps indicate privately owned filling stations which dispense Standard products.

In any attempt, therefore, to move goods through filling stations, the only method of approaching the company-owned stations would be through the officers of the controlling oil company; with leased stations, due regard must be had for company regulations over the lessees. As a rule, however, these lessees are permitted to operate the stations as they wish, as long as they keep away from products of competing refiners, from disreputable practices of the short-measure and “midnight graft” sort, and from the two forms of dope.

### *Marketing of Kerosene*<sup>4</sup>

Kerosene is marketed in much the same manner as gasoline; only the service is unimportant, and the major part is distributed to the consumer through the agency of the tank wagon and tank station; considerable use is also made of the retail store. The price of kerosene is usually determined in the same manner as the price of gasoline, the tank wagon price charged by the Standard companies being followed by other marketers. There is a systematic differential between the price of the two products, and the two prices tend to fluctuate in unison.

<sup>4</sup> From Joseph E. Pogue, *op. cit.*



Of recent years, however, the differential has been narrowing, since the price of kerosene has advanced the more rapidly of the two.

The export trade in kerosene is large, and the marketing of kerosene abroad has received careful attention. Today, American kerosene reaches literally to the four corners of the globe, since markets nearer at hand were inadequate to afford outlet to the supply of this commodity. The five-gallon kerosene can is familiar object in the most out-of-the-way regions.

#### *Marketing of Fuel Oil*

The distribution of fuel oil is entirely different from that of gasoline or kerosene. Consumed in bulk by industrial establishments, railroads, and steamships, its placement does not require the attenuated distribution demanded by gasoline and kerosene. It is sold for the most part under direct consignment from the refinery to the consumer, and much of the supply is contracted for in advance. Its market price in the past has tended to fluctuate widely under varying conditions of supply and demand, especially as a result of the tendency of crude petroleum to display a periodic acceleration in advance of demand, and consequently the need for anticipating conditions has been particularly important in order to secure advantageous disposition.

The storage capacity demanded by fuel oil has rendered the matter of marketing especially difficult for the small refiner, who must keep this product continuously on the move to make room for the new output. In consequence, the small refiner is unable to maneuver with the purpose of taking advantage of market conditions. On the contrary, it frequently happens that an appearance of oversupply is created entirely fortuitously by a coincidence of accumulating storage in adjacent refineries, to the entire demoralization of the local market.

#### *Marketing of Lubricating Oils*

Lubricants present a third type of problem in marketing. These products are highly fabricated into a diversity of types to meet a wide range of specialized demands. They are not bulk products in the sense that gasoline or fuel oil are, but require individual treatment in their placement to use.

The motor oils, which now constitute a substantial portion of the entire output of lubricants, are in part handled like gasoline through service stations and by tank wagons to garages and stores.

Lubricating oils designed for industrial service are usually sold di-

rectly on contract to the industrial establishments. The selling of such oils customarily involves an engineering service to fit the oil to the functions it is designed to perform. Lubricating sales are consequently often handled by an engineering, or semi-engineering staff; some companies employ lubricating engineers who work in conjunction with the salesmen.

A considerable volume of lubricating oils is handled by jobbing interests, some of whom buy the base oils and compound them into special grades bearing the jobber's name. This tendency, together with the competition prevailing among the refiners, has resulted in a confusing multiplicity of brands and an extensive range of advertising and other specialized sales effort.

### *Inspection Laws*

In the early days of oil marketing, the various states passed oil inspection laws with direct reference to the flash point of kerosene, in order to safeguard the users of this product from explosions. Very little attention was devoted to gasoline beyond a requirement that it should be retailed in marked containers and labeled "dangerous." With the growth of automotive transportation, however, the conditions of a few years ago have been reversed and there is no tendency for any gasoline to be left in the kerosene to lower its flash point; hence the basis of the kerosene inspection laws is obsolete.

A number of states and a few cities have tried to regulate the quality of gasoline, but most of such requirements are unreasonable and unscientific, and their enforcement would materially reduce the output of gasoline.

### *Market Analysis*

Service stations are usually located on the basis of a count of automobiles that pass. The expansion of marketing equipment has proceeded, in part, upon the exact measurement of the consumptive requirements of the territory to be served. And wide use has been made of the registration figures for automobiles and trucks, in order to determine the rapidly expanding requirements for gasoline and motor oil.

### *Marketing Crude Petroleum on the Pacific Coast*<sup>5</sup>

Part of the crude petroleum produced in California is sold for fuel

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<sup>5</sup> From *Report of the Federal Trade Commission on the Pacific Coast Petroleum Industry*, Part II, "Prices and Competitive Conditions," November 28, 1921.

oil purposes without refining, while the remainder is consumed by petroleum refiners. The crude sold for fuel purposes is distributed throughout the same territory in which refined products are sold, while that used by refineries is refined within the state. The crude petroleum producing districts of California are so far removed geographically from other crude producing sections of the United States that there is no competition from refiners outside of California for this crude petroleum, while refiners in California have been wholly dependent upon production within the state for their supplies. Consequently, there may be an overproduction or shortage of crude petroleum in California at a time when conditions are just the reverse east of the Rocky Mountains.

The crude petroleum not produced by the large producers, the Standard Oil Company (California), the Union Oil Company of California, the Associated Oil Company, the Shell Company of California, and the General Petroleum Corporation, is largely purchased by them and is usually sold at the producers' tanks in the oil fields to the purchasing company.

When a producer first sells crude petroleum, or when new wells are brought in, the pipe line company transporting the crude connects the producer's tanks with its gathering lines. In practice, many small producers are limited to one purchaser because only one pipe line system is available. When a producer has a tank full of crude petroleum ready to deliver to the pipe line company he notifies the company's gauger, who, after gauging the contents of the tank, opens the valve that permits the crude to flow or to be pumped from the tank into the gathering line. Later, after the tank has been emptied down to a certain point, the valve is closed, thereby "cutting out" the tank from the gathering line; then the tank is gauged again and a ticket is issued showing the height of the crude in the tank at each of the gauges. This ticket serves also as a receipt for the producer. The quantity of crude petroleum taken is determined by reference to tank tables, carefully computed from actual measurements, which show the cubical contents of any tank for every difference in height in graduations of a quarter of an inch.

Under the system of purchase and sale of crude petroleum in California, practically all crude is purchased on contract. The following stipulations, which are usually contained in a crude petroleum contract, deserve special mention: The life of the contract runs from one



year and upward; the quantities to be delivered usually cover the total output produced in a specified area subject to a maximum limit; the deliveries are to be made from the tankage of the producer into the pipe line of the purchaser, which pipe line is connected with the producer's tanks. If no definite quantity of crude petroleum is stipulated for delivery, a special clause is usually inserted in the contract obligating the producer to pro rate his property in good faith and with reasonable diligence. The character of the crude is determined from samples which are taken from time to time. It is usually provided that the tests are to be made in the presence of the producer or his representative. As a rule, since 1914, the price has not been fixed in the contract, but is stipulated to be the market price which obtains at the time the crude petroleum is run into the pipe line. Very frequently it is specified that the price which the purchaser offers to other producers, that is, the market price, is to be applicable to the crude bought under the contract. This latter provision constitutes a regular feature of the crude petroleum purchase contracts that the Standard Oil Company (California) enters into with the producers.

#### *Cooperative Selling Agencies*

The Independent Oil Producers' Agency, a cooperative organization in which membership is confined to producers, was organized in 1904 in the Kern River field. Each member is required to own stock in the organization and is limited to one share. The members obligate themselves to deliver their entire output of crude petroleum for a term of years to the organization, which, in turn, agrees to sell the crude at the highest market price.

#### *Crude Petroleum and Fuel Oil Exchanges*

The practice of exchanging crude petroleum of the same or different qualities is very prevalent among the large marketing and producing companies in California. This custom is peculiar to the petroleum industry of that section.

#### *Exchange Contracts*

The exchange arrangement between the large companies are usually made on a contract basis covering a period of from a few months to several years. Some contracts have no time limit and are subject to cancellation upon short notice. The contracts stipulate the terms upon which the exchange is to be made, such as the time of settlements, the



place of delivery, the grade of crude petroleum, and the price at which it is to be taken in exchange.

*Distribution of Fuel Oil on the Pacific Coast*

Tank steamers, barges, tank cars, and tank trucks, and wagons are used quite extensively in delivering fuel oil to the consumer. Fuel oil is shipped to consumers at interior points in tank cars and to consumers on navigable waters in tank steamers or barges. Consumers at interior points in Oregon and Washington are served by shipment in tank steamers to Portland or Seattle, where the fuel oil is transferred into tank cars and forwarded to final destination. To consumers whose plants or storage tanks are not located near railroad tracks or wharves deliveries are made by tank trucks or tank wagons.

Fuel oil is used as fuel principally by railroads, steamships, public utilities, and industrial plants, such as manufacturing, mining, and smelting, and for domestic heating purposes. Part of the fuel oil is supplied by heavy crude petroleum just as it comes from the well.

*Pipe Line Transportation of Petroleum in Wyoming*<sup>6</sup>

On account of the fact that some of the Wyoming oil fields are widely scattered, the pipe lines do not form a complete system but lead from each pool or field to a refinery or to a railroad. These conditions require a relatively large pipe line investment and result in higher operating expenses, because many of the lines are operated at much less than full capacity.

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<sup>6</sup> From *Report of the Federal Trade Commission on the Petroleum Industry of Wyoming*, January 3, 1921.

## XXXIV

### RAW RUBBER

#### THE CHANNELS OF DISTRIBUTION<sup>1</sup>

##### *Primary Parties (From the Marketing Viewpoint)*

THE most important intermediary operating between the raw rubber producer and the rubber manufacturer is the importer. His duties include the assembling, sorting, financing and redistribution of the product to other intermediaries or manufacturers. The importer purchases through (1) estate agents, (2) foreign and local brokers in the Middle East or Europe, and (3) in the Middle Eastern and European markets (either auctions or exchanges). The importer sells through brokers to the manufacturers or sells to manufacturers direct. The risk involved in reselling the product is assumed by the importer inasmuch as he grants credit to the buyer. Besides having to cope with price fluctuations, the importer is also involved in foreign exchange problems. The combination of the two presents a speculative situation in which a great deal of money is made and lost.

The estate agent, located in the large primary markets of the Middle East (Singapore, Colombo, or others) represents one large plantation or two to three smaller plantations. His duties are principally in connection with the inspecting, weighing, receiving, storing, and shipping of the product and with the financing of the sales transaction.

The foreign broker, located in the Middle East, places raw rubber at the disposal of importers or other purchasers, such as American manufacturers, at a fixed rate per ton which remains unchanged regardless of price fluctuations.

The foreign representative, of an American manufacturer, say, is usually associated with the large rubber manufacturer. His principal duty is to keep his firm in constant touch with plantation conditions.

The United States plantation owner has to perform all the tasks taken care of by the estate agent, foreign broker, or foreign representative. For this and other reasons, we find only the largest of rubber

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<sup>1</sup> From an unpublished paper by Jack Kahn, University of Chicago, 1927.

manufacturers involved. The entire output of these plantations is used by the factories in the United States.

Brokers inspect the raw rubber but handle none of the financial details of distribution. They collect a flat rate (\$5.60 per ton in the United States) from the importer for their services.

#### *Secondary or Auxiliary Parties and Organizations*

Illustrations of such bodies are the Rubber Association of America, whose rules and regulations govern transactions between buyers and sellers in the United States and Canada, and also the Rubber Trade Association of New York. The Rubber Trade Association of London is the legislative body there. The rubber exchanges in New York and London are central meeting places of the rubber trade which have greatly facilitated business dealings. In Singapore all sellers at the weekly auctions must be members of the Singapore Chamber of Commerce Rubber Association. The rules and regulations governing the raw rubber trade in Colombo, Ceylon, are made by the Colombo Rubber Traders' Association. A very influential body in the rubber plantation world is the Rubber Growers' Association, primarily a British group.

### TRADE PRACTICES

#### *The Contract of Sale*

Three types or kinds of contracts are used in making raw rubber purchases. Most of the raw rubber imported by the United States (Canada, too) is bought on the "c.i.f." (cost, insurance, and freight) contract. The quoted price on c.i.f. contracts includes cost of raw rubber as well as insurance and freight, the last two items of which the seller prepays. The buyer pays the landing charges. In the f.o.b. contract, raw rubber is sold at a price which includes loading on board the ship ("free on board" ship as of a certain port). The third type of contract is for "spot" raw rubber to be delivered immediately. The kind of information included in raw rubber purchase contracts is: first, the names of the purchaser and the importer for whose account the order was taken; second, the quantity ordered; third, the grade of raw rubber wanted; fourth, the price per pound; fifth, the "position" or terms of delivery;<sup>2</sup> sixth, the weights to be used (as "New York weights"); and seventh, the terms of sale or method and time of payment. Shipping instructions are sometimes given, but more often not.

<sup>2</sup> About 2 months are required to bring raw rubber from Singapore to Akron, halfway around the world.

*Terms of Sale*

The credit terms are of three general types: (1) sight draft attached to bill of lading, (2) net cash in 10, 15, 20, 30, and 60 days, and (3) trade acceptance terms for 30, 60, or 90 days. The terms given to a particular manufacturer depend largely on his credit rating. An American manufacturer making a purchase in Singapore or Colombo cables his representative to buy certain grades at stated prices (limits) or at the market prices (no limits) for shipment in time to arrive at the factory at an approximate date in the future. At the same time, the necessary financing, usually in the form of a letter of credit (although overdrafts are used quite extensively also), is arranged to cover the buying orders.

*Customs of Local Markets*

Prior to 1914, Para and to a less extent Manaus in Brazil were the principal raw rubber markets. As less than 5% of the total world supply of raw rubber now comes from South America, their influence has greatly declined.<sup>3</sup>

Some important raw rubber markets are: New York, London, Singapore, Colombo, Batavia, and Surabaya.<sup>4</sup>

## PRICES

*How Prices Are Determined*

Prices of raw rubber are determined generally by bargaining where the samples are exhibited, occasionally in public auctions. In the case of standard grades, buyers and sellers are guided by recent transactions and market reports as to supply and demand. In the lower grades of raw rubber, about 20% of the total, there is more scope for bargaining. As approximately 80% of the raw rubber produced is used in automobile tire products, motor vehicle production and registration are most important as an index of demand. The other uses of raw rubber are significant also, such as mechanical and electrical products, boots and shoes, and rubber clothing. Potential production of plantation rubber is thousands of tons more than actual production, chiefly because of

<sup>3</sup> For a description of market trade practices in these two ports see W. L. Schurz, *Rubber Production in the Amazon Valley*, Crude Rubber Survey, Report No. 4 United States Department of Commerce, pp. 28-29.

<sup>4</sup> For an account of their local differences in inspection, currency, and methods of sale see J. J. Blandin, *Marketing of Plantation Rubber*, Crude Rubber Survey, Report No. 1, United States Department of Commerce, Trade Information Bulletin No. 180, 1924.



British regulation of exports from England's Middle Eastern rubber plantations. When the price of raw rubber is going up or is high-priced (above 30 to 40 cents a pound, which is considered by American manufacturers a "fair price"), reclaimed rubber is utilized to a much greater extent than when raw rubber is low-priced.

### *Stocks and Prices*

The surplus production and increase in stocks which began in 1912 and culminated in 1920-1922 is largely responsible for the raw rubber price index going down while the raw materials price index and in fact all prices were going up after 1914. Raw rubber sold for around \$1.25 a pound in 1900 and fluctuated characteristically until a high point of over \$3 a pound was reached in 1910; thereafter the price settled down gradually to a low point of 16 cents a pound in 1921. The gyrations in the price of raw rubber are marvelous.

### *The Future of Rubber Plantations and the Rubber Manufacturing Industry*

The crux of rubber's future lies in the price of raw rubber. Plantations are planned to meet the needs of the world for raw rubber. The United States rubber manufacturing industry has reached its tremendous development primarily because of the enormous national market. When the rest of the world begins to cultivate automobiles, the sporadic growth in the use of rubber will again be demonstrated. The need for closer working between producer, manufacturer, and user is obvious when we look into the ups and downs of industries like the rubber industry.

## BRITISH REGULATION OF RAW RUBBER EXPORTS

### *Voluntary Proposals for Regulation of Supplies and the Stevenson Scheme*

Some time between 1910 and 1914, a voluntary arrangement was made among some British, Dutch, and Chinese raw rubber producers to limit their production of previous years by 25%. But the agreement (which controlled over half of the total plantation output) was broken up by the abandonment of the plan by several members eager to secure the rise in price that occurred after the arrangement was completed. Another attempt to control the output started in November, 1920, when the Rubber Growers' Association secured the assent of some 70% of British, Dutch, and Chinese producers to cut their output to three-

fourths of the previous year's output. This later attempt, although continued until December, 1921, was scarcely more successful than the previous effort. The association failed to control a sufficiently large proportion of the production.

A committee was appointed in October, 1921, headed by Sir James Stevenson, "to investigate and report upon the present rubber situation in British Colonies and Protectorates for the information of the Secretary of State for the Colonies [Mr. Churchill] and to advise what remedial measures should be taken to improve the existing position."<sup>5</sup> The scheme adopted, named after the chairman of the committee, consisted of a graduated scale of export duties ranging with the percentage of "standard production" exported. "Standard production" is the actual output for Malaya and Ceylon (since the Dutch refused to adopt the plan) from November 1, 1919, to October 31, 1920, plus allowances for new plantations, bringing the total to 380,000 long tons. The scheme at first aimed at a price of 30 to 36 cents, but in 1926 changed the aim to between 42 and 48 cents a pound. Departures from this desired price are followed by alterations in the export quota, with the proviso that in no case will the percentage be increased above 100% or decreased below 60% of standard production, according to a revision made in October, 1926.

#### *The Effect of Regulation on Prices and Supplies*

The scheme helped to work off the surplus stocks in good order. But the price situation was not helped in any direct way by the Stevenson scheme. At least, the efficacy of the plan in bringing about the high raw rubber prices in 1925 is doubtful.<sup>6</sup> The act was clumsy in operation and perhaps sent prices to higher levels than would have been the case without the plan, but the consensus of opinion among students of economics is that the plan is not all that was hoped for.

#### *England Revises Restriction Plan<sup>7</sup>*

The use of reclaimed rubber, together with increased stocks on hand in London and a lack of demand from owners for tire and casing replacements, has served to reduce the price of raw rubber in London. The British Government accordingly has announced a revision of the

<sup>5</sup> A. Phillipson, *Rubber Position and Government Control*, 1924, p. 81.

<sup>6</sup> The greatly increased demand for raw rubber in the United States in 1925 together with the inelastic operation of the plan is looked upon as the reason for high raw rubber prices in that year.

<sup>7</sup> From "Rubber," in New York Trust Company's *Index*, May, 1926.

Stevenson Plan, contingent on price conditions during the three months beginning May 1. Whereas the original restrictions were planned to maintain the price at 15 pence, the new method of output restriction will go into effect should the price fall below 21 pence (42 cents).

The new plan temporarily relieves the larger rubber plantations from all restrictions, provided the established price level is maintained. During this period, the percentage of standard production is fixed at 100% of actual capacity to produce.

However, should the price fall below an average of 42 cents on the London market, a restriction to 80% of capacity will be imposed on all plantations for three months beginning August 1. In view of the fact that the British Colonial Office under the original Stevenson Plan set 30 cents as a fair price, this new rate represents a considerable increase in what was formerly considered a reasonable price for rubber.

#### *Results of Great Britain's Restriction Policy*<sup>8</sup>

Sir Robert Horne's recent contention that no great benefit is derived by the British Government from the rubber restrictions would seem to be corroborated by figures lately compiled for the London *Economist*. These figures show that Great Britain's rubber output has fallen by about 20% since 1922, the last post-restriction year, while that of non-restricted countries has risen by 50%.

The British rubber measures were originally devised in the interest of producers, and recent articles on this subject appearing in the London press have objected to the rubber planters' suggesting that the plan was also drawn up for the sake of British manufacturers. The latter, it is pointed out, never asked for such measures and would be glad if they were removed, even though the effects of the removal were disappointing.

As it stands now, one-sided restriction has merely had the effect of applying a great stimulus to the production of rubber in nonrestricting areas, and as a result the total supplies have not been reduced since restriction was introduced. On the contrary, they have considerably increased, the growth of Dutch production, in particular, being phenomenal.

<sup>8</sup> From "Rubber Restriction," in New York Trust Company's *Index*, January, 1926.





INTRODUCTORY READINGS  
IN MARKETING

SECTION IV

MANUFACTURED PRODUCTS

- A. PRODUCED IN SMALL-SCALE FACTORIES
- B. PRODUCED IN MEDIUM AND LARGE-SCALE FACTORIES



## A. PRODUCED IN SMALL-SCALE FACTORIES

### XXXV

#### PAPER

##### NEWS PRINT PAPER<sup>1</sup>

THERE are two kinds of middlemen handling news print—jobbers and sales agents. The distinction between the two is that the jobber usually buys and resells, while the sales agent chiefly sells on commission. The three largest sales agents on the North American continent are the George H. Mead Company, Canadian Export Paper Company, and H. G. Craig and Company. Each of these concerns represents several mills, and together they handle several hundred thousand tons of news print paper annually. Their sales are largely to the daily papers and jobbing trade. There are several other sales agents which handle the output of a particular mill, such as W. H. Parsons & Company, which sells for the Pejepscot Paper Company, both the manufacturing and selling company being controlled by the same interests.

The jobber handles many grades of paper and often does a commission business as well as buying and reselling on his own account. The commission business is usually for sales of news print and book paper on contracts with publishers. When such contracts are made, the jobber covers them by making similar contracts, either direct or through selling agents, with the manufacturer, who makes shipments direct to the publishers.

Almost every city of any importance has one or more jobbers or wholesale paper houses which carry various kinds of paper. Often such a house makes a specialty of some particular grade, such as high-grade printing paper, bond paper, writing paper, kraft or wrapping paper, building paper, paper bags, twine, and so forth. While practically all the jobbers handling printing paper handle some news print, very few make a specialty of it. The reason given by a number of jobbers is that there is little or no profit in it and other kinds of paper. A few of the very large jobbers, however, do a considerable business in news print, both in rolls and sheets. Ten of them, perhaps, handle

<sup>1</sup>From *The News-Print Paper Industry*, Federal Trade Commission, Document No. 49, 1917.

more than 75% of all the news print sold by jobbers. None of these depend on a single mill for their supply of news, although several have allotments of a certain portion of the output of a particular mill.

A considerable proportion of the sales of news print by jobbers is for miscellaneous purposes, many of them selling very little, if any, to publishers. The jobbers making a specialty of news print in addition to their contract business handle large quantities of both roll and sheet news on current transactions. Part of this business passes through the jobbers' warehouses, especially purchases in ton lots or less. Carload shipments are usually made direct from the mill. Lots from a ton up to a carload may be shipped either direct from the mill or from the jobbers' warehouses.

The principal advantage a publisher has in buying his requirements of news print through a jobber instead of direct from the manufacturer is in the matter of service. The jobber normally carries a stock of roll and sheet news and, being more conveniently located with respect to shipping facilities than the manufacturer, can tide the publisher over in case of a sudden shortage due to such causes as failure of a car to arrive promptly, freight embargo, or congestion, strikes, fires, or the like. This is especially true of publishers not located in the large cities where the manufacturer keeps stocks. Another advantage is in the matter of extension of credits. A customer with a good credit standing can usually obtain extensions of credit from the jobber, especially if he is an old customer, whereas purchases direct from the manufacturer are usually cash or net 30 days. A third advantage for less-than-carload lots is the saving in freight. The jobber pays the carload rates for the long haul on his warehouse stock and the less-than-carload rate is charged only for the short haul.

## BOOK PAPER<sup>2</sup>

The principal grades of book paper are machine finish (M. F.), sized and supercalendered (S. & S. C.), coated, and cover. The difference in the first three grades lies mainly in the finish given the paper. Cover paper is a strong, heavy grade which is usually coated. It is used mainly for the covers of magazines, catalogues, and so forth. Within each of these grades there are numerous variations in the specifications for size, weight, color, and so on.

<sup>2</sup> From *The Book Paper Industry*, Federal Trade Commission, Document No. 79, 1917.



*Methods of Packing*

Book paper is furnished by the manufacturers either in rolls or sheets. Roll paper is used largely by publishers of magazines and periodicals, and sheet paper is used by publishers of books and for miscellaneous purposes. Sheet paper is packed for shipment in several ways. The more important are lapped, interlapped, framed, and creased. The difference in price on account of packing is sometimes as much as 20 or 25 cents per 100 pounds. The most expensive packing is in cases. High-grade coated paper is usually packed in this way to protect the high finish of its surface.

The largest consumers of book paper are the publishers of certain weekly and monthly magazines. Several of these concerns use more than 10,000 tons a year each. During the year 1916, 28 of the largest publishing concerns entered into contracts for 122,158 tons of supercalendered paper.

*Channels of Distribution*

Book paper is sold by the manufacturers and jobbers either on contract or in the open market. The contracts usually run from a few months to a year or more. Very few, however, cover more than one year. The manufacturers sell part of their output directly to the consumer and part to jobbers. Manufacturers east of the Pennsylvania-Ohio line sell most of their paper directly to the consumer, while those west of the Pennsylvania-Ohio line and east of the Mississippi sell most of theirs to jobbers. Taking the country as a whole, the data secured from the manufacturers show that the machine finish and coated grades under contract were sold largely to jobbers, while a very large proportion of the supercalendered paper was sold directly to publishers. In fact, most of the important magazines use supercalendered, which is bought directly from the manufacturers on annual contracts. Book publishers and the smaller commercial users generally buy from jobbers and frequently in the open market.

*Book Paper Jobbers*

Book paper is handled by a large number of jobbers throughout the country. All the larger cities have one or more jobbers, some of whom have branch houses at various points. Most of these jobbers carry various other lines of paper besides book paper, such as bond, writing, news print, wrapping, and so on. Practically all the book paper handled by jobbers is bought and sold by them on their own account, very little being handled on a commission basis.

A much larger percentage of book paper is distributed through jobbers than is the case with news print paper. In fact, some of the western manufacturers sell practically all their production through jobbers, and the eastern manufacturers also dispose of a large part of their open market business in this way.

Book paper purchased in the open market is bought largely through jobbers, since they keep a great variety of grades, sizes, and colors on hand, and in the large centers also maintain a delivery service. In some cases, jobbers carry hundreds of different items in stock or can have them quickly delivered from the mills.

Most of the jobbers issue price lists from time to time. During 1916, when prices were rising, these lists were issued at frequent intervals.

The price lists issued by jobbers are of two kinds, one known as the net list, which is most generally used, and the other known as the long list, which is in use in Detroit and to a greater or less extent in Cleveland, Buffalo, Cincinnati, and Louisville. The net list gives the cash price less the usual discounts, while the long list is 25% higher than the net list. The purpose of the long list is primarily to protect the printer. In cities where the long list is effective, a consumer of printing paper other than a printer or publisher cannot buy directly from the jobber except at the long-list price, while a printer or publisher gets a 20% discount.

Carload sales by jobbers are practically all shipped direct from the mill to the customer. Quantities less than a carload but more than one ton may be shipped either from the mill or delivered from the jobbers' warehouse. Less than ton lots are nearly all delivered from the jobbers' warehouse. This usually results in a saving in freight to the buyer, since the jobber gets a carload rate on the paper from the mill to his warehouse. However, the expense of rehandling must then be taken into consideration.

Many publishers state that while the paper bought through a jobber may cost more than if bought direct, they consider that the convenience of having the jobber relieve them of the trouble of making the order and attending to the details of the transaction is worth the increased price.

A number of the more important jobbers have the exclusive agency in their localities for one or more manufacturers, but this does not prevent them from competing in localities where there is not a representative.

*Imports and Exports of Book Paper*

Practically all the book paper consumed in the United States is produced by domestic manufacturers. Imports are almost negligible. Large quantities of chemical pulp used in making paper, however, are imported from Canada, Scandinavia, and other foreign countries.

The principal countries exporting book paper to the United States in normal times were Germany, Netherlands, Norway, England, and Scotland. Since the beginning of the European war, imports from Germany have ceased, and during the fiscal year 1917 no imports were received from the Netherlands.

*Contract Prices of Book Paper*

A smaller proportion of book paper is sold under contract than is the case with news print paper, there being fewer large consumers. Some of the manufacturers of book paper sell none of their output under contract, some sell only a small proportion, while others sell 90% or more in this way. In general, companies with a small production sell most of their paper in the open market, while those with a large production sell mostly on contract.

A larger proportion of supercalendered paper is disposed of under contract than of any other grade, and a smaller proportion of coated. This is due to the fact that supercalendered is used in large quantities regularly by publishers of periodicals, while coated is used in small quantities at irregular intervals by a large number of consumers.

As a rule, the contracts cover a period of one year, although many cover shorter periods, and a few run for two or three years.

Nearly all the contracts for book paper provide for the delivery of the paper either at customer's sidewalk or f.o.b. cars at destination. Manufacturers and jobbers east of the Pennsylvania-Ohio line usually deliver the paper at the destination except in large cities. Cartage charges from cars to sidewalk range from 2½ to 5 cents per 100 pounds.

NEWS PRINT PRODUCTION IN UNITED STATES AND CANADA AND  
IMPORTS OF UNITED STATES FROM CANADA<sup>3</sup>

(Unit, 1,000 short tons)

Country	1915	1920	1924
United States .....	1,239	1,512	1,471
Canada .....	489	875	1,353
Imports of United States from Canada.....	368	679	1,197

<sup>3</sup> From *Commerce Yearbook*, 1924, pp. 350-353.

Where the cartage charge was not stated, it was estimated at 4 cents per 100 pounds.

The principal pulp and paper producing countries outside of the United States are Canada, Sweden, Germany, Norway, and Finland. Although of these Canada is the heaviest producer, its specialty is news print, most of which enters this country as a noncompetitive product, supplying the great demand which cannot be met by the domestic mills. Imports of news print from Canada in 1924 constituted about four-fifths of our total imports of paper. We are also importing increasing quantities of news print from the other foreign countries mentioned.



## XXXVI

### TEXTILES

#### THE CLOTH MARKET<sup>1</sup>

##### *Organization in 1912*

FOUR methods of selling cotton cloth are followed: (1) selling direct, (2) by a selling house, (3) through a broker, and (4) to a converter.

1. When a cotton manufacturing company sells direct, the goods are marketed either by an officer of the company or by a salesman employed solely for that purpose. The business is generally transacted by the treasurer, who accepts the orders and arranges the terms of sale. Several large companies, however, have established private selling offices under the control of the treasurers, in which the trade is attended to by salesmen. The Lorraine Manufacturing Company, of Pawtucket, has its treasurer's office at the mills and a selling office in New York, with branches in Chicago and other cities. The Amoskeag Manufacturing Company instituted a similar plan in 1910, and the product of the American Printing Company is now sold by M. C. D. Borden and Sons, which, in view of that firm's control in the printing company, amounts to selling direct. But as yet few manufacturers operate on a scale sufficiently large to permit the maintenance of a separate selling department. In the majority of instances where the products are sold direct, the work is personally superintended by the treasurer.

Selling direct is particularly characteristic of the New England mills which manufacture staples. Those mills are located chiefly in southern New England, in the vicinity of New Bedford and Fall River. They produce plain goods of standard styles, the selling of which is easier than the marketing of fancy goods with seasonal designs. Moreover, the standard goods are sold for cash or on short-term notes, whereas longer credit must be granted on the other class. Still, not all New England mills producing staples sell direct, for reasons to be explained later. In the South, many of the yarn mills, but few of the cloth mills, sell direct.

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<sup>1</sup> From M. T. Copeland, "The Cotton Manufacturing Industry of the United States," Harvard University, 1912.

The standard goods disposed of in this way are sold in the gray, that is, unfinished. The mill normally has orders about three months ahead, especially on the finer grades, but if the market prospects are good, the mill is kept running even if no orders are immediately at hand, and the cloth is warehoused till there is a demand for it. To express it in trade terms, when the manufacturer has not sold ahead, he manufactures for stock, since there are many spot sales of this class of goods.

Manufacturing for stock was formerly common for all classes of fabrics. The results were the auctions. But the auction room meant a loss to the mills, and consequently the manufacturers of finished goods have gradually given up the practice. For them there is always a danger inherent in any accumulation in their warehouses. Their market is not so flexible as that of the gray cloth manufacturers. Yet even the latter, as well as the former, generally find a policy of immediate curtailment desirable whenever a panic occurs.

The gray goods manufactured in Fall River are usually sold f.o.b. Fall River, the manufacturer ending his responsibility, except for faults in the fabric, when the cloth is delivered to the transportation company. The cloth is finished wherever the purchaser desires, and at his own responsibility.

The advantage of selling direct is that the mill is more independent. There is no conflict between the treasurer and the selling house, and no suspicion that the selling agent is not trying to serve the best interests of the mill. The treasurer may not always be as capable as the specialists of the selling house in judging the market, but the amount that would have been paid to the selling house as commission is saved.

2. The selling house, sometimes called selling agent or commission house, is a separate firm and is in most cases the sole agent for the mill whose goods it handles. A few mills have two selling houses, each for a different kind of product. For example, a mill may have one selling agent for yarns, if it makes yarn for sale, and another for cloth. A small number of mills which employ a selling house also sell goods direct. But in the main one concern markets all the goods produced by the mill, and the mill is not at liberty to sell through any other agency. A selling house, however, is agent for several mills, and frequently markets woolen as well as cotton goods.

The selling houses have gradually expanded their business with the increase in the size of the plants of the companies for which they are agents and with the acquisition of the business of new mills. The

larger houses have offices in New York, Boston, and numerous other cities. The more prominent ones have from ten to twenty mills for which they act as selling agents. In all instances they accept the orders and control the marketing of the goods, the treasurers merely collecting the bills. The selling agent has two distinct functions—the distribution of the goods and the provision of financial assistance. The two services are not of equal importance in New England at the present time, but in the South both are utilized by numerous mills.

For southern mills the difficulties of marketing the cloth give an opportunity for selling agents. The distance from the markets and the lack of intimate acquaintance with market conditions are obstacles to direct selling by southern manufacturers. Moreover, the holding of stock in southern corporations by selling houses, while less common than in New England, is by no means unknown. But the dearth of capital has had fully as great influence as any other factor in causing the southern mills to rely upon selling houses. Inasmuch as their quick capital has seldom been adequate, the southern mills have borrowed money either by receiving advances on the goods or by indorsement of their notes. Spinning mills occasionally obtain funds directly from the southern banks in exchange for a lien on their stock of cotton. But for advances on the product and the indorsement of notes or guaranteeing of accounts, northern selling houses have been employed and have frequently loaned from 75% to 90% on the value of the cloth. In return, they have received not only interest on money advanced and a higher commission for indorsement of notes or guaranty of account, but also the exclusive agency for the sale of the product.

The commission charged for the sale of southern goods is higher, because of greater risk. A southern manufacturer pays his selling agent  $3\frac{1}{2}\%$  or 4%, a northern manufacturer  $1\frac{1}{2}\%$  or 2%. The commission on southern goods includes 2% for selling and 2% for guaranteeing the payment of the purchasers' accounts. The majority of New England mills are so strong financially and their credit is so firmly established that the additional indorsement of their commercial paper by a selling house is seldom little more than a matter of form; hence they are relieved of the extra charge. In the case of the southern mills, which are generally smaller, less strong financially, and too remote to be easily watched, there is greater risk. Southern goods are more apt to have flaws and do not, as a rule, enjoy the reputation of northern fabrics.

The relations between the southern manufacturers and their selling



agents have not always been cordial. Not only have the manufacturers complained of the higher commission which they pay, but they have also accused selling agents of disposing of consignments of goods at unremunerative prices. They allege that the selling agents have sold such goods at whatever prices were obtainable, even if the market were dull, instead of carrying them till trade improved. It was this dumping of consigned goods that was felt most keenly by the New England manufacturers and gave rise to the complaints against southern competition in the nineties. The selling houses have been accused of causing severe injury and even bankruptcy of southern mills in this way, just as they have also been charged with bankrupting some New England companies. The fault, however, would seem to be ascribable to the consignment system; for it has been consigned goods which were sold at ruinous prices.

Consignment trade is nearly always unsatisfactory and nearly always gives rise to complaint. It is not peculiar to the American domestic trade in dry goods, since foreign manufacturers who send consignments to New York import houses frequently make similar accusations. A manufacturer who produces more than he has orders for, and who cannot hold the goods in his own warehouse or send his own salesmen into the field, places himself at the mercy of sudden market changes. A selling house can seldom afford to carry a stock of goods, especially on a falling market, and has to take what it can get. The fault of the selling house in this respect does not appear to lie so much in the actual sale of the goods as in the failure to forecast the market correctly and to advise its clients to curtail shipments. At all events, dissatisfaction with the selling houses has fostered the spread of the practice of selling direct.

The selling house has maintained a strong foothold in New England also, although not in New Bedford and Fall River. In some instances large holdings of stock in a mill by a selling house or some of its members has continued the connection between the two when otherwise it would have been broken. Secondly, gray cloth manufacturers situated in the more remote parts of New England would perhaps find it difficult to keep closely enough in touch with the market to sell direct. Others are so weak financially that the credit of the selling house is almost indispensable. They have not sufficient ready capital to provide for current expenses—the payment of wages, purchase of raw material, and settlement of other charges incurred during the process of manufacture and until the goods are paid for by the purchaser. Nevertheless, for



a majority of the New England manufacturers, advance of money or indorsement of notes is not essential. The chief credit has come to be primarily with the mill. Consequently, financial aid is no longer so influential in securing exclusive agencies for New England cotton mills by the selling houses. On the other hand, the selling houses have found an increased scope for activity in the marketing of other than staple fabrics.

The mills which manufacture fancy goods of seasonal design, such as fancy prints or gingham, ordinarily employ a selling house. They are mills which do not sell in the gray. The selling house either selects the designs itself, or is at least asked to give its opinion on the designs before the patterns are set up. Later, samples of cloth bearing the various designs are sent to the selling house by the mill, by means of which orders are solicited from regular customers and from the trade in general. The selling of these fancy goods requires especial skill in judging the designs, in securing orders, and in estimating the probable demand. The selling of staples is much simpler; if the goods are not in immediate demand at satisfactory prices, they may be stored away in the warehouse. But the fancies must be sold to meet the prevailing fashions during the season for which they are produced. Otherwise they can be disposed of only at a loss, owing to the dislike for last season's designs. It is essential that the marketing of the fancy goods should be in the hands of skilled salesmen.

Complexity of designs and necessity of securing orders before the goods are manufactured have made it necessary to send out the designs long before the season in which the goods are to be placed upon the retail market. Each mill usually has two seasons. For example, a mill may have a flannel season and a wash goods season. For the latter, designs are sent out in the autumn; the goods are made during the winter and put upon the market in the spring. For the former, the designs are issued in January, and the goods are made ready to be shipped in the autumn. Likewise in gingham and fancy prints there are spring and autumn designs. While the special seasons are well defined, designs are also sent out by the mills during the intervening periods. The designs are submitted to the trade much earlier than formerly, now usually six months ahead, whereas fifteen years ago cards were made up in January for spring delivery. The marketing of fancy goods, therefore, has become specialized along with the specialization of the industry.

The selling department must understand the market thoroughly, and

this can be accomplished better by a selling house than by the treasurer or his subordinates. A selling house has so many agents scattered over the country that it can feel every pulse beat of the market. It can foretell more or less accurately the probable strength of the demand for the individual lines and understands the local tastes. Certain styles are better received in some localities than in others, and in general there are distinct sectional characteristics. For example, the people in the Southwest prefer light, gay colors and those residing in the Northwest darker, gray goods. These local preferences and the fluctuations of a wide market offer opportunity for specialization in selling fancy cotton fabrics.

The seasonal goods are made to fill orders which the selling house has obtained before the manufacture of the cloth is begun. Of course, if the selling house thinks that the market will absorb more of the goods than it has orders for, it accordingly requests the mill to manufacture a larger quantity. As a rule, no order is accepted for less than 2,000 yards by some mills, and by other mills for not less than 6,000 or 10,000 yards of a single design. In every case the order must be large enough to pay for setting up the design and adjusting the machinery without necessitating the charging of exorbitant prices.

A practice of which the mills complain is lenience in allowing customers to cancel orders after they have been accepted by the selling house, given to the mill, and the cloth made. In the recent depression following the panic of 1907 many orders were cancelled, thus causing loss to the mills. The competition between the mills and the desire to retain customers led to the extension of a practice which the mills would be glad to get rid of. The merchants, however, justify their action in canceling the contracts on the ground that the mills were tardy in filling the orders which had been accepted. During the great rise in cloth during 1906 and the early part of 1907, the experience of the buyers was that the vast majority of the mills were behind on their promised deliveries, in some cases the mills not making any deliveries on their contracts for three or four months past the time promised. In other cases, where they began fairly promptly, their weekly deliveries were much smaller than promised. The consequence was that when the crash came in the fall of 1907, the buyers had contracts outstanding which should have been completed by the mills, and in addition to this they had finished goods on hand that had been carried over from the season before through inability to get their goods from the mills when promised. About 90% of the rejections after the

panic were based by the buyers on the fact that the mills were behind on delivery. This statement, in the words of one of the buyers, throws light upon the other side of the controversy.

Irrespective of the extent to which the cancellations were justified in 1907, it is to the interest of both parties that a formal arrangement be instituted to prevent abuses in the future. To this end the two large cotton manufacturers' associations have undertaken to formulate a uniform cloth contract and to provide for some sort of an arbitration board to pass judgment upon cases arising from breaches of the contract. In order to protect themselves an agreement between the mills is necessary. The individual mills are not only reluctant to take the matter to court when an order is canceled, because of the relatively small amount involved in each cancellation and because of the disadvantage in competition to which they might be subjected, but also because of the technicalities involved and the uncertainty of securing a favorable verdict. No piece of cloth is perfect, and a slight flaw may be made the basis of a refusal to accept the piece at all, thereby placing the blame on the mill.

The question of cancellation has assumed more importance with the increase in the length of time between the giving of the order and the delivery of the goods. It has become more difficult to foretell what business conditions will prevail at the time of delivery, and if the market suddenly collapses, there is a loss to be borne by someone. Where a mill has not been punctual in fulfilling its contracts, it has little right to seek relief, but on the other hand a uniform contract and an arbitration board would prevent the burden being unjustly thrust upon the mills which had met their obligations.

The selling house performed a valuable service in the early years of its existence as a distributing agent for the manufacturers and in giving financial aid to the mills which lacked sufficient capital. It still plays an important part in the marketing of special kinds of goods and in some cases in indorsing the notes of the mill. Another function of the selling house is the centralizing tendency which it has stimulated in the movement for integration to which reference has already been made. A few selling houses, however, are little more than parasites, holding mills tightly within their grasp as creditors.

3. Unlike goods that are finished at the mill where woven, usually sold by a selling agent to the wholesaler or large retailer, cloth sold in the gray ordinarily passes through the hands of a broker to a converter. The broker is a middleman who brings together the buyer



and the seller. In New York, Boston, Fall River, and some other cities, there are a number of these cloth brokers who buy no cloth themselves and accept no responsibility but merely act as intermediaries. In Fall River the greater part of the cloth, probably 90%, is sold through brokers, and in other places where standard goods are manufactured, brokers usually aid the treasurer or the selling house in securing orders for cloth in the gray. The New York cotton goods brokers are by far the most important, however, and the number has increased from 18 in 1907 to 39 in 1911. If a man wishes to purchase a certain quantity of a specified style of cloth, the broker finds a manufacturer or a manufacturer's agent who can fill the order. Thus, by keeping in touch with the buyers and with the sellers, the broker is able to bring together the right parties, and with the expansion of the industry and the growing volume and diversification of products such a middleman secures an increasingly large place in the market organization. The purchaser is able to find more readily the goods which he wants, and the manufacturer economizes in time spent in seeking customers.

For his services the broker usually receives  $\frac{1}{2}$  of 1% on the value of the goods which he is instrumental in selling. As the greater part of the southern goods are sold in the gray by the selling house through a broker while many New England mills manufacturing this kind of goods employ only the broker, it is evident that the commission paid to the selling house is saved to the northern mills.

4. The purchaser of the gray goods is either a printer or a merchant converter, another middleman. The term "converter" is used in several senses, but here is applied to the class of men who buy cloth in the gray, have it converted, and then sell it the wholesaler or large retailer. The converter obtains the order for a certain style of finished goods, or thinks that he can dispose of such goods, and then buys the cloth from a manufacturer. He gauges his purchases by market conditions, "going in" lightly or heavily according to trade prospects and the price at which he can obtain the cloth. He sends the cloth to the converting establishment which offers the best terms or has a specialty in the kind of finish which he desires. The cloth is bleached, dyed, or printed, as the case may be. For printing, the converter may have his own designs; a few converters who specialize in prints and offer fancy patterns even send agents to Paris for the latest ideas.

The converter has become particularly prominent within the last ten years. The increase in the scale of production, the specialization



of the industry by the separation of cloth manufacturing and cloth finishing, and particularly the demand for greater diversification of styles and finish have caused a great increase in the converter's business. By having the cloth converted on his own responsibility, the converter relieves the manufacturer and the finisher of a certain amount of risk. This encourages an increase in the scale of production and enables the manufacturer and the finisher to give more attention to the refinement of their respective branches. The converter also brings in capital and credit, buying the goods on short terms of payment, carrying them till they are converted, and, if need be, providing credit to the purchaser. The development of the converter, therefore, signifies a diversification and specialization of the distributing functions and renders the market more plastic. An increased volume of trade can be more nicely adjusted to the varying demands.

The mercantile organization of the American cotton goods trade is undergoing a change at the present time, and the position of the merchant converter is the key to the situation. Although several printers still convert on their own account, cloth printing tends to follow bleaching and dyeing and become a commission or jobbing trade. A few converters, it may be stated, carry on a wholesale business. On the other hand, the cutters-up, or ready-made garment manufacturers, and the shirt, collar, and cuff makers, occasionally invade the converter's field and buy goods in the gray to be converted on their account. One of these firms, Cluett, Peabody and Company, has recently purchased a bleaching plant to be operated in connection with its collar factory. Yet, notwithstanding these variations in practice, experience in this country and abroad indicates that the merchant converter will probably be increasingly important in the future.

The cloth may go through many hands, therefore, after it is woven. If the manufacturer employs selling agents, the cloth is handled by them, at least on their books. Then a broker may aid in selling it to a converter, who has it finished before passing it on to the cutter-up, the wholesaler, or the retailer. So that from the time it leaves the mill till it is placed upon the counter in the retail store, it has been the subject for possibly five or six different transactions. Not all cloth goes through so many hands. It may be sold directly by the mill to a large retailer. For example, the large department stores are seeking to deal directly with the manufacturers and converters and to buy from the jobbers only when the latter are "caught long" and are willing to make concessions on prices. But a large quantity of cloth

is handled by all the various agents and middlemen that have been described.

Knit goods are sold direct or by a selling house. A broker may take part in the selling of the goods, but his place is not large, and the converter has no place at all, since the goods are usually finished at the mills where they are made. Some lines are sold ahead, but the bulk of the goods are staples, so that they can be carried in stock if the mill has not enough orders on hand to take all that it produces. Though some of the mills produce specialties, the greater part of the trade is in standard products which are sold as cotton cloth is sold and frequently through the same channels.

The chief market center for all kinds of cotton goods is New York City, where in Worth Street and its neighborhood the offices of selling houses, brokers, and converters, and the establishments of numerous jobbers are located. Although the volume of business transacted in Boston is still large and the western markets are constantly increasing in importance, the trade gravitates toward New York. That city is the center of the import and export trade, and its position at the head of our financial and commercial system helps to make it the leading American dry goods market.

To summarize the present tendencies in the development of the organization of the American cloth market, merchandizing is becoming more diversified and more specialized. The selling house is apparently less important than formerly except in a few special branches. It might lose its hold there, even, since the mills manufacturing fancy seasonal goods are large and might open their own selling offices, were it not that these are the mills in which the old selling houses have the largest holdings of stock. For the sale of gray cloth the selling house seems to be losing ground. On the other hand, the broker is gaining a stronger foothold. But it is the merchant converter who is coming most rapidly to the front.

### TEXTILE MILLS ADVERTISE THE INDUSTRY<sup>2</sup>

Why the textile mills have not filled the advertising columns of publications to the extent of other industries is a question that has perplexed the advertising fraternity for many years.

For many years everything conspired against the textile industry's

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<sup>2</sup> From John R. Rutherford, "Textile Mills That Point the Advertising Way to the Industry," *Printers' Ink*, September 16, 1926, p. 141.

identifying its merchandise. There was the conventional selling agent, whose job was marketing the goods of several mills. His interest was confined to no particular brand. He felt he was the ball and socket of the textile trade—the juncture where supply fits smoothly into demand without the slightest friction—waste of time, energy or money. Any desire on the part of the mill owner or advertising man to build a consumer preference for an individual line of goods was an affront to his ability to market merchandise. And the average mill owner was considerably dependent on this selling agent's good will.

Notwithstanding the comparatively few textile advertisers, the fact remains that those who have identified and advertised their goods to the public have increased their output beyond expectations, many gaining leadership in their field as a result. Cannon Mills began advertising but recently. Skinner's Satin has been advertised for the lining of garments to such an extent that the mail order houses use it in their catalogue descriptions as a selling argument. What woman does not today know of Pussy Willow, Chin-Chilla Satin, Will-O'The Wisp, Molly-O crepe, and other Mallinson fabrics?

#### RECENT TENDENCIES AS SHOWN BY HARVARD RESEARCH<sup>3</sup>

1. Of the total billings reported of yarn-dyed fabrics and gray goods, approximately one-third was to converters, 10% to cutters-up, 13% to manufacturers other than cutters-up, 14% to wholesalers, 5% for export, and 1% to retailers. The remaining one-fourth of the total goods sold by cotton manufacturers was in the form of finished fabrics converted by cotton manufacturers or for their own account.

2. Of the billings of cloth converted by cotton manufacturers, 29% was to cutters-up, 9% to other manufacturers, 46% to wholesalers, 4% to retailers, 5% for export, and 7% to hospitals and unclassified types of customers.

3. Of billings reported by cotton converters and finishers for 1924, 28% was to cutters-up, 41% to other manufacturers, 24% to wholesalers, 6% to retailers, and 1% for export.

4. Thus the total estimated market for cotton piece goods in 1924 was made up as follows. Approximately 30% was sold for industrial purposes; 26% was used by cutters-up; 6% was exported; 36% was sold as piece goods by retailers, and 2% was in the form of unclassified institutional sales.

<sup>3</sup> From *Distribution of Textiles*, Harvard Bureau of Business Research, Bulletin No. 56, pp. 9, 17, 19, and 22.



5. Eighty-nine per cent of the piece goods purchased by retailers was bought from wholesalers, 8% was bought directly from converters and cotton manufacturers converting on own account, and 3% directly from cotton manufacturers in the form of yarn-dyed fabrics and gray goods.

6. Billings of cotton domestics were divided, with approximately one-third each to converters and wholesalers, one-fifth to other manufacturers, one-tenth for export, and the balance to cutters-up and retailers.

7. Billings of print cloths, voiles, marquisettes, lawns, shirtings, twills, and sateens by cotton manufacturers were made predominantly to converters, for four-fifths of the total; cutters-up were billed for one-tenth of the total of these fabrics reported to the Bureau; other manufacturers, wholesalers, and exporters together accounted for the remaining one-tenth.

8. For pile fabrics, the bulk of the billings were to converters; for fine and fancy mixed goods converters accounted for four-fifths and wholesalers one-fifth; while for gingham the bulk of the billings was to wholesalers.

9. The principal market for drills, denims, flannels, and cottonades was found in 1924 among the cutters-up. Converters took appreciable quantities of drills, and industrial purchasers bought significant quantities of canton flannels, husking cloths, and table felts. Appreciable billings of flannels were made to wholesalers, and of drills and cottonades and cotton suitings to exporters.

10. In the case of such industrial goods as tobacco and bandage cloths, tickings, and tire fabrics, the majority of the billings were to industrial purchasers or industrial supply wholesalers.

#### *White Goods Lose Ground, Silks Gain*

The consensus of opinion among retailers was that the sale of white dress goods had decreased sharply in the last five years, primarily because of changes in style. White cotton dress goods seemingly have decreased sharply in popularity for summer wear in favor of silks, presumably because of the increasing smoke and dirt in metropolitan areas, the popularity of the automobile, changes in living habits and the increasing difficulty in securing domestic workers, and the development of attractive designs and color in printed silks, which are within the reach financially of large classes of women.

The relative decline of cotton wash goods during the past five years,



according to the opinion of department store executives, also has been caused by a change in style in favor of silks.

### *Small Orders*

Changes have occurred in the purchasing methods of customers of textile manufacturers which have occasioned much discussion within the industry. Distinct changes have occurred in the size of orders for cotton piece goods placed by customers of cotton manufacturers and selling agents in 1924 and 1925 as compared with 1921. The general conclusions drawn from the study of the size of orders for cotton cloth made by the Bureau as a part of this study of the distribution of textiles follow:

1. Orders received by cotton mills and selling agents commonly were distinctly smaller in size in 1924 and 1925 than in the years 1921-1923. A majority of the orders were for quantities of less than 5,000 linear yards.

2. The prevalence of small orders, however, was not a revolutionary development. Somewhat meager evidence indicates the existence of such a condition in 1911, at least, and the strong presumption is not only that major fluctuations in the size of orders have occurred in other periods in the history of the cotton industry, but that a general trend toward the placing of small orders was under way prior to 1917.

3. Distinct differences were apparent in the size and number of orders placed in 1924 for different classes of fabrics.

4. Over a period of five years, individual orders from wholesalers showed some downward trend in size, but, in general, orders from wholesalers showed less variation in size than did orders from cutters-up and mail order firms.

5. Orders placed directly with mills by department stores were smaller in size throughout the period than were orders from wholesalers. The size of direct orders placed by department stores apparently varied far more widely during the five years following 1920 than was the case of orders from wholesalers, cutters-up, and mail order firms.

6. Indications were that, during 1924, department stores placed a large number of comparatively small orders with wholesalers and converters, and a small number of distinctly larger orders directly with mills or their selling agents. A group of representative department stores purchased approximately 40% of their cotton piece goods from

wholesalers, 32% from converters, and 28% from mills or their selling agents.

7. The problem of style fluctuations as regards both the intensity and rapidity of style changes seemingly has been of distinct importance as a cause of conservative buying in general and of the frequent purchases of cotton piece goods from wholesalers by department stores for fill-in purposes.

The prevalence of small orders for quick delivery and the circumstances which led to that condition were uppermost in the minds of a large number of manufacturers and merchants who were interviewed by agents of the Bureau during the course of this survey. Their points of view showed wide variances, and recriminations between the several groups in the industry were general.

From the standpoint of the manufacturer, the prevalence of small orders for quick delivery has meant that if a manufacturer were to keep his plant in operation at full capacity he was likely to have to manufacture for stock, with the attendant risk of loss from merchandise depreciation whenever prices dropped or style requirements were not accurately foreseen. The alternative to operating the plant at part capacity or manufacturing for stock has been a radical modification of the system of scheduling work within the plant. Up to the present time, this change in buying practice seems to have been a burden to the manufacturers, with few offsetting gains. The process of readjustment to these new conditions has only begun; it is far from completion.

For the converters, the prevalence of small orders for quick delivery has increased their handling and shipping costs and enhanced the risk of loss from style depreciation. The converters have had problems analogous to those of manufacturers, except that the converters have been able to shift a part of their burden back to the manufacturers of gray cloth.

Wholesalers, under the new conditions, have had to handle more small orders, thus increasing the ratio of their shipping and book-keeping expenses to sales. Many wholesalers have sought to minimize their inventory risks by placing small orders for quick delivery with manufacturers and converters.

#### *Department Stores*

Department stores are among the largest retail distributors of textile fabrics. During the last ten years, department stores have been par-

ticularly aggressive in their efforts to strengthen their control of merchandise purchases and inventories. Buying calendars, or merchandising budgets, have come into more common use, with the result that buyers have been more cautious in making commitments far in advance of the dates of delivery. Emphasis has been placed also on securing an economical rate of stock-turn . . . .

The style factor has had a twofold manifestation. In the first place, there apparently has been a tendency for the sales of wash goods and white goods, for example, to decline. In the face of declining sales, retailers naturally have followed conservative policies in buying such merchandise to minimize inventory losses. In the second place, the number of designs and patterns offered for sale has increased, and, if a retail store were to have carried the same aggregate quantity of piece goods in stock, the increase in variety in patterns would have made necessary smaller individual purchases for each pattern. The other influence cited gave added incentives for conservative buying by retailers. The practice of hand-to-mouth buying, therefore, has been the product of conditions beyond the control of any one group of the various parties engaged in the manufacture and distribution of textiles. The problem has been a mutual one, and the general attitude of recrimination has not aided in its solution.

#### STYLE A GROWING DIFFICULTY FOR THE MIDDLEMAN<sup>4</sup>

Generally speaking, the cotton goods industry is in a deplorable condition due, as we believe, to something that is very much akin to what we read in history in regard to the Tower of Babel, where on each landing there was spoken a different language. The industry of cotton goods is divided into five major branches, namely, mill interests, converter, finisher, jobber, and retailer—and a survey of each of the avenues of production will show that not in any unit will you find a rule of business that is in any way related to the principles of trading applied to any or either of the other branches. While we should be a unified trade, each with the opportunity to enjoy reasonable success, the picture is just the opposite. We have a civil war in the cotton goods industry, and news from the front indicates that at present the retail distributor is, and for some time has been, most firmly and

<sup>4</sup> From M. J. Warner, "Different Aspects of Merchandising," (address delivered at 31st Annual Convention of American Manufacturers Association, Atlantic City, New Jersey), *American Wool and Cotton Reporter*, Vol. 41, No. 20, May 19, 1927, p. 60.



effectively entrenched, and that the converter is in the forefront of the opposing lines, with a heavy casualty list, as shown by the credit reporting agencies.

### *Converter's Business a Seasonal One*

From the very nature of his business, the converter of cotton fabrics intended for garment purposes—for women's and children's wear—inaugurates his preparations in the early months of the calendar year, meaning February, March, or April, in order that his lines may be completed and ready for showing during July and August, which is the expectation of the distributing and garment trades. The volume of goods provided for the converter, up to that time, expressed by deliveries and contracts and measured in dollars and cents, is frequently twice the capital that he has in his business. Now we are up to the time (August) when he is ready to make his showing to the distributor.

His exhibition is interesting to the buyers, but only in the sense that they may thereby be enabled to sense the style trend. At that early time, the best that the converter can hope for is a complimentary reference to his skill and enterprise, there shown. There is a promise given, however, of further and more careful consideration, when our representatives visit the buyer at his distant place of business during September, October, or November. Those visits are made, the lines again carefully gone over, the buyer makes careful note of the fabrics that he most admires, places a tentative order, and promises to confirm when next in New York, which will be some time before the first day of the coming year, or directly thereafter. That time arrives, and with it the buyer, and then there is another inspection of goods. In many instances orders are placed, but for extremely moderate quantities of everything but sample cards; in the latter direction buyers are usually quite liberal.

### *The Buyer's Attitude*

It is not unusual for a buyer, then seeing the goods for the third time, to complain of the patterns shown being old and to inquire "When do you expect to show your new goods?"

Let us pass by those who are unreasonable or unreasoning, and follow him who has actually operated by the placing of small orders. Shipment is wanted in February, together with the sample cards, and when delivery is made, he (the jobber) prepares to send his goods on the road during February and March, but little can then be expected



from his customer, the retailer, for the hand-to-mouth principle of buying provides for what the term expresses, namely, that purchases shall be made only as goods are needed, and that late buying avoids the hazard incident to a possible change of fashion, or trade fancy. And so the converter waits until April to learn which of his developments meets with the approval of the consuming public—and then what?

For answer, we must now turn around and face the mill; there we inquire for certain wanted goods and are told that a contract will be acceptable providing that you, Mr. Converter, agree that delivery shall start in six weeks, and with weekly deliveries thereafter of 8% of the quantities ordered. At that point, we turn to the East and inquire of the finisher how much time he will need to give us the completed fabric, and we are grateful for his promise to expedite the work and start these goods toward us five weeks from the time when gray goods are delivered at his plant.

Now to summarize: Six weeks for starting delivery, one week for transportation of gray goods to finishing plant, and five weeks for finishing; in other words, in three months from April 1 (or about July 1) we can hope to have in our establishment, in finished form, the gray goods mill's first installment, when the summer is practically over. That, however, is not the entire story; not even a reasonable part of it, for we are still expecting eleven additional deliveries, and by the same formula the last of these goods would come into our house during the latter part of September—just in time to find the ladies donning their fur-trimmed winter coats! Now I will take you back to the first of April, when we have the first indication of public fancy, and by the picture then before the converter you can readily see how impossible would be the placing of contracts for additional gray goods at that late period.

The analysis that I have given is somewhat overdrawn, for up to the present time, part of the need of replenishment of gray goods as of April 1 could be provided for promptly where the foundation fabrics are of the standard variety, as up to now it has been the practice of most mills to provide reasonable stocks in advance of the expected demands; so you must accept what I have here offered as applying particularly to specially woven fabrics, weaves that are novel in one respect or another, and in that direction you join with us in a lost sales opportunity, in which the jobber and retailer also share.

*Jobber Would Shift Burden*

On the other hand, the jobber, whether from the thought of lending the greatest measure of cooperation or possibly in a spirit of self-preservation, leans more and still more toward the retailer's business policies, and as our primary distributor moves in the direction of his source of outlet it is shown that the converter's period of inactivity is proportionately lengthened; as the jobber throws off the cost of carriage and as much as possible of his share of the hazard in merchandise, the converter must add to his burden to just that extent.

Whatever may be the disposition of those in our trade, the fact remains that it is impossible for us to pass back to the mill man any part of this added responsibility that is put upon us. So far as they apply to his relations with the converter, the business rules of the gray goods mills are precisely the same today as they were 25 years ago. You will entertain our inquiry for goods, present what you have to offer, under terms and conditions reading as follows: "Delivery to start at. . . . . (time), to go forward to completion at the rate of 8% weekly, customer to accept 'seconds' up to 5% of the contract, and 'tailings' up to 10% of the contract; goods to be shipped f.o.b. mill, terms net 10 days." All of which is as it has been from time immemorial, so far as is known to the converter of today.

## XXXVII

### SILK<sup>1</sup>

THE products of silk production are marketed in various forms. For example, in certain communities in Italy there is a large business of selling certified silkworm eggs. These are usually sold at a certain price an ounce. Many silk growers sell the cocoons that they produce. The usual method of preparing them for market is to stifle the chrysalides by steam, by heating in ovens, or by freezing and then drying them thoroughly. When dry, they are sorted according to size, color, and quality, and are sold by weight. As a rule, small silkworm growers everywhere dispose of their product in this manner and at this stage. Finally, raw silk is marketed after it is reeled, some of it as reeled silk, and the parts that will not reel as silk waste. In the Orient, silk is reeled into skeins of varying sizes, which are then packed into square blocks, called books, containing from five to ten pounds. The books are packed in bales, each weighing from 100 to 200 pounds or more. In 1912, the average price for a pound of reeled silk was between three and four dollars. From this it can be seen that a bale is a pretty valuable piece of goods.

### TRANSPORTATION OF SILK<sup>2</sup>

Steamers coming from China and Japan to the western United States handle the silk as carefully as if it were gold. It is unloaded, usually at Seattle or San Francisco, and then taken east in baggage coaches directly to New York, the great American raw silk market. Often an entire train is made up of baggage coaches loaded with raw silk, and these "silk specials," as they are called, are given the right of way from coast to coast. Passenger trains, freight trains, and all must find the side tracks when the "silk special" passes through; and well they may, for the silk in each coach may average more than \$125,000 in value, and the value of the entire trainload of silk may be \$2,000,000.

<sup>1</sup> From Paul H. Nystrom, *Textiles*, New York, D. Appleton and Company, 1916.

<sup>2</sup> From Ratan C. Rawley, *Economics of the Silk Industry*, London, P. S. King & Son, Ltd., 1919.

## THE PRESENT SYSTEM

It might be observed before considering the activities of the market for raw and waste silks that the enormous increase in the world's consumption of these two important raw materials had had a considerable influence on the increase in the number of commercial functions. The increased demand for raw and waste silks necessitates the presence in the manufacturing country of merchants and brokers who have made a special study of the exact requirements of the silk manufacturers. Moreover, there are so many grades and qualities of raw and waste silks that it is impossible for an importer who deals in a large number of commodities to devote full attention to their classification. The complicated nature of the trade, arising out of the modern manufacturing requirements, demands a clear division of function based on the nature of the commodities imported. For this reason, we find that, as a rule, the merchant or the broker who deals in raw silk does not include waste silk in his business, and *vice versa*.

Again, there is a further division between the commercial functions of the merchants and the brokers. Strictly speaking, the merchant's business is confined to the importation of silks from China, Japan, and other silk producing countries. In a well developed market, the next function is performed by the broker. It is the merchant who is the first buyer of the raw and waste silks imported from foreign countries and who possesses all the available information concerning supplies. Then comes the broker, who sells the imported supplies on commission to the manufacturer and who possesses full knowledge of the existing demand. On the side of supply, the merchant performs as important a function as does the broker on the side of demand. Thus, buying and selling represent two independent forms of commercial organization in a highly developed and extensive market.

There is so much room for speculation in the Silk Exchange that the exporters representing or buying for large firms in New York or Lyons find it difficult to follow the movement of prices even after their long experience in the business. For this reason it is essential that the importing houses in Europe and America should receive immediate information about the fluctuations in prices. But in the absence of a central source of information, this important commercial function is performed by private cable quotations received only by large importing firms.

London is the central market for raw silks in England, while Man-



chester is now the principal market for waste silks. The reason for the shifting of the waste silk market from London to Manchester is quite obvious. The concentration of the spinning industry in the central area makes Manchester the most convenient market for the raw material and as London has long held the traditions of an important raw silk market, there is no economic reason for shifting the market to some other place.

As regards buying arrangements, the usual method of procedure is that, first of all, certain standards of the raw material are fixed by the manufacturers or the spinners, who, as a rule, anticipate their requirements and buy "to arrive." The manufacturers transmit their orders to the brokers or to the merchants, who cable the offers to the selling agents in Shanghai, Canton, or Yokohama, according to the quality of the raw material required. On account of the uncertainty of quotations, the merchants do not like to import raw or waste silks on their own account, and in most cases prefer to cable instructions to the Far Eastern agents against definite orders. The exporter in Shanghai and Canton cables the latest quotations to the importer in this country and allows four days' time limit for the final settlement of the business in question. If the importer cables acceptances within the time limit the exporter is bound to accept the order, but if there is no reply from the importer, no further steps are taken by either of the parties.

The absence of an international system of grading necessitates the fixation of standards by individual members of the trade, and thus not only causes delay in the execution of orders, but also increases the cost of marketing. In the second place, the consumers of the raw material, that is, the manufacturers and the spinners, buy "to arrive," in order to protect themselves against a possible rise in the prices of raw and waste silks. And similarly, the merchants buy from the exporters against orders from brokers and manufacturers, in order to avoid risks involved in a possible fall in prices. In other words, in a comparatively small market, the general tendency of the parties interested in the trade is to protect themselves against possible fluctuations in prices. But in a large and well developed market, although this tendency exists, it does not exist to such an extent as to force the merchants to buy only against orders from brokers. In Lyons, Marseilles, and Milan, for instance, some importing firms adopt the policy of stock holding and base their calculations on the future conditions of supply and demand. The final result of this policy, however, depends on the

direction of the prices of raw silks. If the prices rise and the market becomes favorable for the sellers, the dealer who holds stock makes profits; on the other hand, if prices fall, he incurs losses.

The present machinery of marketing and distribution receives its motive force from the services of the broker and the merchant. The former relieves the silk manufacturer of commercial anxieties and thus enables him to devote more attention to the organization of his factory. In order to illustrate this point, let us suppose that the manufacturer adopts the system of "direct buying," that is, without the help of a broker. Under this system, he will have to create a buying department and keep a regular staff for this purpose, for otherwise the chance of receiving good supplies of raw silk will be remote. But the creation of a buying department depends upon the size of the business. In the case of a large manufacturing firm this could probably be done without great financial burden, but in the case of a small firm, the adoption of this policy would certainly result in greatly increased expenditure, and therefore the latter would consider it advisable to pay the broker a commission and then remain free from all responsibility. As the majority of manufacturing houses are small, the system of direct buying does not seem to be economical. Moreover, an expert knowledge of the demand for various kinds of raw and waste silks enables the broker to introduce new varieties to those manufacturing establishments in which they have not been previously used.

#### *Markets for Waste Silk in the United States*<sup>3</sup>

Hartford, Connecticut, is the principal port of entry for the large quantities of silk waste and floss imported into this country. Boston comes second. Both are near the great New England silk mills (New London, Winsted, South Manchester, in Connecticut, and Pittsfield, Northampton, Holyoke, and Florence in Massachusetts) where large quantities of spun silk are produced. The center of reeled silk manufacture is in Paterson, New Jersey, and in the hard coal region of Pennsylvania. The state of New York also has a large number of establishments using reeled silk in some stage of manufacture.

#### SOURCES OF RAW SILK<sup>4</sup>

Of the countries producing raw silk, Japan and China occupy the

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<sup>3</sup> From Nystrom, *op. cit.*

<sup>4</sup> From *Silk*, by Benjamin Strong, Jr., of the International Acceptance Bank, Inc.

leading positions by a large margin, the former contributing roughly one-half of the world's supply, and the latter about one-third. Italy ranks a poor third, with about one-tenth, and France, the Near East, India, Spain, and the Balkans contribute the balance.

Although the greater part of the raw silk produced in the various countries is exported for manufacture abroad, a certain percentage is retained for home spinning and weaving. It is estimated that about 65% of the Japanese output is exported, approximately 90% of which goes to the United States.

In China, over one-half of the output is held for domestic consumption, the remainder being divided about equally between Europe and America.

The Italian raw silk—a very high-quality product—finds its largest market in France, principally in the city of Lyons, the silk center of Europe.

#### MARKETING RAW SILK OF THE WORLD

The principal raw silk markets of the world are Yokohama, Lyons, New York, Milan, and Canton. Of these, Yokohama is probably the largest and most important, because of the preeminent position of Japan in raw silk production.

The Yokohama Raw Silk Exchange operates on a basis similar to that of the various cotton exchanges, and transactions are carried on in "futures" as far ahead as five months. The speculative element is very active and its influence is often felt extensively throughout all phases of the industry. On several occasions it has been necessary to close the exchange to avert a real disaster after the quotations have been manipulated to an unbelievable extent. During the last few years the Japanese Government and various silk organizations have, by law and regulation, succeeded in improving this situation to a very great degree, and the benefit has been felt throughout the industry.

Raw silk is sold by weight—in Yokohama, by net weight, that is, less wrappings. Of recent years in most countries it has been the custom to deal by conditioned weight, and as a result the conditioning process has become an important side line in the industry.

#### *Conditioning*

Conditioning is desirable principally on account of the fact that raw silk absorbs considerable moisture. A careless buyer may find after delivery that he has purchased more water than he has silk. To



avoid this possibility, Asiatic and European markets in particular have adopted the conditioned weight basis—absolute dry weight plus 11% moisture. Quotations are often given on invoice weight, which is conditioned weight plus a 2% margin for variation.

### *Grading and Quotations*

The question of classification of raw silk for market and the various terms used for its purchase and sale is a complicated one. Standardization has been sought after for a good many years, and committees both here and abroad have studied the problem on various occasions, but without entirely satisfactory results. The chief source of trouble appears to lie in the many types of variation that may occur, not only because of the great number of qualities required in the product, but also because of the varying conditions under which the silk is produced. In the early days of the industry, when farm production was the chief source of supply, particularly in Japan and China, satisfactory grading was almost an impossibility. However, now that sericulture and reeling have come more and more into the hands of the large companies and filatures, a greater degree of standardization can be reached.

### RAYON<sup>5</sup>

(1) Rayon is a new product, not yet tried and tested, like the other textile fibers, by generations of users. It is, furthermore, a fabricated product, laboring under the disadvantage of being artificial, of being looked upon as an imitation, a substitute. As in the case of any other fabricated product, its quality is within the control of the producer; and it therefore seems obvious enough that the best and most practicable way to establish standards of quality is for the producer to identify his product.

The number of producers of rayon is relatively small, and it must always remain so because of the large investment and the high degree of executive and technical skill involved in the conduct of the industry. They market their product direct to the users. Finally, they are in a position to control the quality of their product and consequently to maintain uniformity of quality.

(2) The rayon industry is expanding so rapidly that important changes are taking place in it overnight.

<sup>5</sup>(1) From William D. Darby, "Where Is Rayon Going?" *Dry Goods Economist*, August 28, 1926, p. 14; (2) from John Allen Murphy, *Printers' Ink Weekly*, December 10, 1925, p. 117.



WORLD'S PRODUCTION OF RAYON<sup>6</sup>

Year	Pounds
1901 .....	1,500,000
1911 .....	20,000,000
1914 .....	26,000,000
1918 .....	35,000,000
1919 .....	40,000,000
1920 .....	50,000,000
1921 .....	65,000,000
1922 .....	79,738,000
1923 .....	97,000,000
1924 .....	141,164,000
1925 (estimated) .....	185,000,000

## CONSUMPTION OF RAYON BY INDUSTRIES, 1923

Hosiery .....	22%
Knit .....	25%
Silk .....	15%
Cotton .....	11%
Underwear .....	5%
Braids .....	10%
Upholstery Goods .....	2%
Plush .....	2%
Wool .....	1%
Miscellaneous .....	7%
	<hr/> 100%

In 1924, the United States was by far the world's leading producer. It turned out 38,750,000 pounds. England came second, with 24,000,000 pounds in round numbers. Germany ran third, with 23,672,000 pounds, and Italy fourth, with 18,480,000 pounds.

While this country has had a 45% *ad valorem* duty on imported rayon, this tariff did not act as an insurmountable barrier. However, most of the big European producers began establishing manufacturing connections in this country. This development naturally tended to shift the business from the European concerns to the American companies. Nevertheless, this country is still importing a lot of rayon.

The uses of the product are being daily extended. And the significant thing about this is that these uses are being developed practically without any effort on the part of the industry itself.

*Advertising Rayon<sup>7</sup>*

Not until the present year [1925] had rayon received much advertising. The product turned out during the first fifteen years of the industry's commercial existence was so unsatisfactory that it is a good

<sup>6</sup> From John Allen Murphy, "An Introduction to the Marketing of Rayon," *Printers' Ink Weekly*, November 26, 1925, p. 3.

<sup>7</sup> From John Allen Murphy, "How Rayon Is Being Marketed," *Printers' Ink Weekly*, December 10, 1925, p. 117.

thing it was not advertised. Still another important reason why artificial silk had not been advertised is the fact that the product lacked a generic name. Until 1924, the material was offered as "artificial," as an imitation of silk. A product carrying the word "artificial" in its name, or rather in its descriptive phrase, is tremendously handicapped. The adoption in 1924 of the generic name "rayon" removed this handicap and gave the industry its first big advertising opportunity. For the most part, though, the manufacturers of rayon have not advertised to any extent. The advertising that has been done has been carried on by other factors in the trade. From at least one viewpoint, there is no reason why the producers of rayon should have advertised. The industry is only just now reaching the marketing stage in its development. Up to now, it has been in the production stage.

With customers clamoring for goods and with production sold up a long time ahead, there seemed to be no need for the manufacturer to pay any immediate attention to marketing. It is the old story of an industry that is underproducing. Most rayon advertising that has been done so far has been put out by retailers. In advertising rayon, retailers, for the most part, merely mention that some garment or other product that they are offering is made of rayon. While it is true that these retail advertisements do very little toward acquainting the public with the quality of rayon or what it is, nevertheless they have had the effect of giving, in a little more than a year, a popular currency to the word "rayon" which is almost unbelievable. The coined word "rayon," as a result of this advertising, has, in a few months, entered the vocabularies of almost every literate person.

Another curious division of the advertising resulting from the rayon industry is the advertising of the investment bankers who are offering securities put out by several of the rayon manufacturers.

Manufacturers of rayon fabrics are beginning to do some advertising. Forty-eight leading underwear manufacturers are said to be cooperating with the American Rayon Products Corporation in the present campaign. Already there are associations in this field. One is known as the Rayon Knitted Fabric Manufacturers' Association, Inc. It met recently to consider such questions as standardization of quality, cancellation abuses, and so on.

Though I have already stated that the manufacturers of rayon, itself, are not doing much advertising, it is a fact that they are doing some advertising. Nearly all of these concerns have done a little advertising

to the trade. The American Cellulose & Chemical Manufacturing Company is the "reason-why" advertiser of the industry. It uses intensive copy, marshaling its arguments in elaborate and convincing array.

Since rayon is a raw material it might be assumed that it is not advertised at all. Its companion materials, cotton, wool, silk, and linen, have never been advertised to any extent. It is the fabrics or garments made of cotton, wool, silk, and linen that have been advertised. In one important way, though, rayon is different from these older materials. These other materials are products of nature. Rayon, however, is manufactured through patented processes which are controlled by the makers. This makes it easier to advertise rayon than it is to advertise silk or wool or cotton.

## XXXVIII

### INTRODUCTION TO THE DRY GOODS AND CLOTHING TRADE

STYLE is more commonly displayed in clothing than in any other kind of market product. This applies not only to the more advanced and temporary style items but it applies to a very material extent throughout the whole range of the textile and clothing trade. This style element has a profound effect on the entire marketing organization. Other products may be standardized and produced in standard styles and sizes by large producing concerns, with the result that these other products may be handled on a standardized basis more or less in bulk. But since people largely refuse to wear highly standardized clothing and refuse to continue to wear exactly the same style from year to year, the trade is confronted with the problem of supplying a very wide variety of types, sizes, colors, and so forth. In supplying this variety, many small-scale producers are the rule. With a few exceptions, the producer of clothing items operates on a fairly small scale. This small-scale operation of the producer makes it inconvenient or impossible for him to make contact with the retailers over a widely scattered territory by means of personal salesmen. The trade therefore depends to a considerable extent upon wholesale merchants, jobbers, and upon large-scale retailers such as large department stores and chain stores.

It is necessary for the retailer to carry a fairly wide variety of styles from which the purchaser may select what she wants. That increases the necessity for some institution to serve in a wholesale capacity to collect the products from small producers and distribute them, a few of each style in a place, to retailers.

As a counter tendency, we find that the rapidity of style changes forces a more direct contact between producers and consumers, since each additional independent middleman serves to some extent to increase the gap between producer and retailer, delays delivery somewhat in point of time, and interferes to a degree with the rapid coordination of supply with demand.

There is no trade in which so little standardization appears. There-



fore it is a trade in which purchases are largely made by inspection of the merchandise or inspection of samples. Since the number of samples that may be carried is limited by economy, there is a decided tendency in this trade for purchasers to come to central markets and there inspect the merchandise of various manufacturers before placing orders for the season's supply. This tendency has a powerful influence in maintaining the concentration of this wholesale trade in a very few centers. The fact that dry goods and clothing are of comparatively concentrated values permits this concentration for wholesale purposes in one section and transportation out to great distances. This would not be possible with a bulky product for which transportation costs would be excessive.

In certain items of clothing we find a much higher degree of standardization than in other items. For instance, in certain lines of knit goods, hosiery, and shoes we find a fair degree of standardization. Such standardized articles may be produced by large-scale companies and advertised on a national scale. In such cases there is a tendency towards direct marketing from manufacturer to retailer.

On account of the lack of standardization, the manufacturer may very seldom advertise nationally one particular type of garment and on account of style changes he cannot afford to concentrate his advertising on one style which will soon be a thing of the past. Advertising in this field, therefore, is commonly of an institutional nature, attracting customers to the house rather than to the merchandise. Perhaps the major part of the advertising in the clothing trade is done by retailers.

### *Recent Trends*

The chain store, particularly the J. C. Penny chain, has been expanding rapidly. The style factor is being increasingly noticed, since magazines of national circulation are carrying the newest style ideas to all consumers throughout the country in a very short time. This tendency, in connection with the increased buying power of the American people and the increased use of luxuries, has rapidly forced the necessity of more direct and rapid communication between the manufacturer and the retailer. This is tending toward the elimination of the jobber, particularly the national jobber. Some of the national jobbers have gone out of business. There has been some consolidation, and other companies are in a relatively unhealthy condition.

There has been a shift from the national jobber toward the local or regional jobber. This is in part due to the fact that increased popula-

tion provides a satisfactory breadth of market for many jobbing houses in the various regions. It is probably due, to a greater extent, to the policy of hand-to-mouth buying which has rapidly developed in America since the war. Many merchants were caught with so much merchandise on hand when prices broke at war times that most of them now refuse to carry any large stock. Since the retailer does not carry large stocks, he wishes to have a jobber near at hand and thus favors the local jobber.

There is also an increasing tendency toward the branding and advertising of dry goods items. With this tendency comes direct selling from the manufacturer to the retailer. Such direct selling is favored by the greatly increased improvement in transportation facilities, including parcel post.

There is a distinct shift from the traveling salesman, carrying a line of samples, to the display room where the retailer may go and select his stock. Such salesmen as are still on the road are generally carrying a small sample line and are generally specializing to a greater and greater extent.

There seems to be a considerable interest in and emphasis on cooperative buying. This sometimes takes the form of relatively loose associations of stores for certain purchasing functions.

The department store is becoming an increasingly important outlet. Most recent developments in this line are the chains of department stores, by which cooperative buying is maintained within the business unit.

### *Retail Outlets<sup>1</sup>*

The chief retail outlets of the textile industry are the dry goods, department, and general merchandise stores.

According to the National Retail Dry Goods Association, the rate of turnover of a department store varies with the kind of merchandise handled, and ranges from 3 to 6.

The term "dry goods" encompasses a wide range of merchandise. It may be said to include the products of cotton, wool, silk, and flax in a thousand varied branches.

Merchandise manufactured from textiles reaches the consumer through the following groups of retail establishments: dry goods stores, department stores, specialty shops, general stores, chain stores, fancy goods stores. The process of distribution is either from the manufac-

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<sup>1</sup> From *Crain's Market Data Book*, 1926-1927.

turer direct to the retailer or from the manufacturer to the jobber, who in turn distributes to the retailer.

The dry goods jobber is an important factor, supplying all except the larger stores. Jobbing centers are well established, the merchants in each territory either visiting the market or buying from the traveling salesman of the jobber, or both.

The large department store has a buyer for each department or group of departments, buying from traveling salesmen or visiting trade centers to make purchases. When the department store is too far from the trade center to have the buyer go there, the buying is done through a resident buyer. For instance, San Francisco establishments maintain resident buyers in New York, which is the center of many dry goods lines.

The smaller department store or dry goods store buys principally from traveling salesmen. Often, a resident buyer in New York or other large trade center buys for a group of stores. Large specialty shops follow the buying systems of the department stores. General stores, of the type found in rural communities, buy principally from jobbers' salesmen, by personal visits to jobbing centers, through catalogues, and also at merchandise shows. They carry lines of merchandise of great variety.

An important factor, also, in the distribution of dry goods are the mail order houses, which distribute catalogues, listing every item of merchandise carried, to thousands of families, principally in the rural sections of the country, where local shopping facilities are inadequate. Mail order houses, located in Chicago, New York, St. Louis, Cincinnati, Brooklyn and other large cities, do an annual business of approximately \$250,000,000.

### THE MARKETING OF WOMEN'S PIECE GOODS<sup>2</sup>

In discussing the marketing problems of woolen and worsted piece goods, it is necessary to distinguish sharply between fabrics designed for women's clothing and those designed for men's clothing. In some cases the two types of fabric are similar, both in form and in commercial handling. Sometimes, to be sure, the same fabric will find outlet into either market, but generally speaking these two types involve entirely different distributing problems. Many cloths are used for both men's wear and women's wear, but seldom at the same period;

<sup>2</sup> From Paul T. Cherington, *The Wool Industry*, Chicago, A. W. Shaw Company.



and, as a rule, those used for women's wear are of inferior quality, as to both raw material and construction.

The relative importance of these two branches of the distributing mechanism, as they are employed in the sale of dress goods, depends in a large measure upon style conditions and varies from season to season. When soft, draped effects are most popular, the dressmaker does a big business, and the amount of over-the-counter trade materially increases, while in the seasons when more severe and more closely fitting styles prevail, the ready-to-wear business shows a gain. But underlying these variations, the past fifteen years have shown a fundamental tendency toward a steady increase in ready-to-wear business.

Even before the ready-to-wear trade had reached sufficient importance to cause this great division in methods of dealing with women's dress goods, the old, or "regular," system of over-the-counter distribution had proved inadequate to a satisfactory handling of the business. There were two chief causes for this condition: (1) the westward movement of dry goods wholesaling, and, (2) the development of the department store and other large-scale retailers.

During the time when the small dry goods stores which sold goods over the counter were the only important retail outlets for women's dress goods the selling mechanism was comparatively simple. The mills turned over their commercial operations to selling houses, who often planned the production as well as the selling for the season. The goods were sold by the selling houses to dry goods wholesalers in the large eastern cities, notably New York, either as the goods were produced, or as "job lots" if production for a time outran consumption. These wholesalers, in turn, sold the goods to retailers, or to local western wholesalers who served smaller groups of retailers in their respective communities. About 1870 came the practice of sending out travelers to the local western wholesalers, both from the selling houses and from the big eastern wholesale houses. This was soon followed by the decline of the large general wholesale houses in the eastern cities. Some of the more progressive of their customers among the western wholesalers grew large enough to get from the representatives of the mills better terms than the eastern wholesalers could give. At the same time, many of the smaller customers of the eastern houses acquired the habit of waiting for the salesmen from the wholesale house, or the mill, to call, instead of going to wholesaling centers to make their purchases. On such a basis, the progressive jobbing houses in Chicago, St. Louis, and other cities not only ceased to buy from the eastern wholesalers, but



were able to send out their own salesmen and undersell the eastern houses throughout the West. The eastern houses, in this way, lost many of their customers, both large and small.

While the eastern wholesalers were thus being outrun by their western rivals, the department stores grew up. They multiplied from three in number to nearly 4,000 in about 50 years. Many of these became so large as to demand and get jobbers' terms from the mills' selling houses. The big department stores, carrying large stocks of over-the-counter woollens, were able to draw consumers away from small stores for miles around. The city department stores quickly became far more satisfactory as a purchasing place for this kind of goods than the small-town or country store. This was because of the advantages of comparison before purchase, not merely between the varieties offered in the stock of a single large store, but between the varieties offered in several large stores near together. The result, of course, was that simultaneously there was more direct buying by large retailers from manufacturers and less buying by the small retailers through wholesale dry goods houses. This concentration in city stores has been so complete that in most small retail dry goods stores the woolen and worsted piece goods business has now either been abandoned altogether or is handled only as a minor part of the business, and covers only a very restricted line of fabrics, mainly staples.

This demoralized trade was in no condition to defend itself when the growth of the ready-to-wear business still further disturbed the methods for distributing piece goods. Seldom can ready-made clothing be handled successfully by a large wholesale dry goods house carrying hundreds of other lines. The wholesaling of these goods, as has already been pointed out, is a specialty business, and nearly all of it which does not take the form of direct sale by the cloak and suit makers is cared for by specialty jobbers. The spread of the ready-to-wear method of supplying women's clothing in turn still further increased the strength of the department store in even moderate-sized towns. The small dry goods stores, which had been unable to compete with their large rivals in piece goods, could not hope to compete in the ready-to-wear lines, which involved even larger outlay and heavier risks.

It should be noted, moreover, that the department store is not the only outlet for ready-to-wear worsted and woolen goods which has reduced the small dry goods retailer's former share of the women's dress goods trade. Other large retail distributors have grown up. Consumers no longer find piece goods in satisfactory variety nor can

they find ready-to-wear woolen garments of the better grades in the local country or small-town stores. But not all of these consumers can, or will, go to the department stores in the large town, or city, to supply their needs. This is a state of affairs upon which two other disturbers of the old conditions have thriven—the “book houses” and the mail order houses. These may be classed for purposes of discussion with the ready-to-wear outlet, because their cloth purchases are made in a manner quite similar to those of the regular cutters.

The mail order houses are too well known to need detailed explanation. Their clothing is usually produced in their own factories. They purchase cloth on contract or in “jobs” and sell their product by catalogue directly to the consumer. The “book houses” have become widely popular during the past ten years, and some of these houses now sell clothing in all parts of the country. Their method of sale is simple. In small tailor shops, and even in dry goods or other stores in small communities, they place a book with plates illustrating fabrics made up into gowns. These plates are accompanied by swatches of cloth. The local merchant is equipped with standard instructions and facilities for taking measurements and forwarding them to the parent house for making up. The customer thus gets the benefit of a personal choice of her fabric and style, and in the same way is able to get the goods made up at a price as low as that for ready-made clothing.

One other feature of the distribution of women’s woolen dress goods which should be mentioned is the “ladies’ tailor.” Some houses of this type operate on a scale large enough to enable them to buy in the piece, while others buy in suit lengths. In any case, they buy chiefly from jobbers making an exclusive business of handling tailors’ woolens, rather than from the dry goods jobbers or wholesalers. Some buy from both types of house. These tailors and the city specialty stores offer about the only remaining over-the-counter outlet for dress goods outside of the department stores.

Very radical changes have been made in ten years in the methods of distribution. Deliveries have been quickened, packages of goods have been made smaller, salesmen are making more frequent trips to their customers, and customers have found it convenient and profitable to visit central markets oftener. The rise of the catalogue house and its invitation to direct purchasing by mail have been a great influence in forcing wholesalers and retailers to adopt modifications of their methods of distributing merchandise. The parcel post, automobile service in rural and city deliveries, and a quickening in recent months on the

part of express facilities, are other suggestive things that have had a wide influence in changing the manner of distribution depended upon by merchants.

### SOME ASPECTS OF STYLES AND FASHIONS<sup>3</sup>

It is necessary in reasoning about the effects of styles and fashions in the textile industries to differentiate sharply between three separate types of goods, which for purposes of discussion we shall designate as (1) creative lines, (2) popular selling lines, and (3) staples. It is true that in the textile trade these distinctions are not always or even generally observed; and it is also true that the three types of merchandise are sometimes made side by side and sold through the same channels. But these facts do not alter the fundamentally distinct character of the selling problems which these three types of goods present. Cotton, wool, silk, artificial silk, linen, or other fibers are used in making fabrics belonging to each of these three types; but the price ranges between cotton fabrics and silk fabrics are not greater than those between extreme style and extreme staple types of fabric made from any one of these fibers.

Perhaps the importance of the distinction between these three types of goods can be made clear by drawing a parallel from another field where creative ability is a recognized factor in establishing values. Suppose it were true that paintings by the greatest living artists, popular-priced color prints or other reproductions of well-known pictures, and artists' materials such as canvas and paints were all called "art works" and all distributed through identical channels; and suppose there were traditions or trade customs which resulted in these three types of merchandise being more often than not regarded as on the same price footing. The absurdity of such a commercial supposition is obvious. And yet the marketing of textiles is in almost precisely this condition.

Many of the curious anomalies of the American textile industry and trade date back over a century to the period following the War of 1812-1816. New England merchants found themselves, after peace was signed, with some available capital made in overseas trade which was then difficult to resume. During the next few years they were led to put this capital into new ventures, notable among which was the use

<sup>3</sup> From Paul T. Cherington, "Some Commercial Aspects of Styles and Fashions in the Clothing and Textile Industries," *Harvard Business Review*, July, 1924.



of New England water powers to operate textile machinery. The New England mills, thus financed, quite naturally turned over their products to these merchants for sale, either as a necessary feature of the financing of the project or "for old times' sake"—the merchant and the mill operator being brothers, cousins, or at least old playmates. Throughout its history, the "selling house," as it has figured in the American textile situation, has been part banker, part merchant, and part "next friend." Nobody resents charges of ultraconservatism more emphatically than do some of the most settled of these selling houses. There can be no criticism of their open-mindedness on many subjects, but in the matter of selling textiles new ideas penetrate with difficulty. There are relatively few instances in which it has been possible to take a new mill product and work out of it a marketing plan which was the fruit of the elements of the problem unmixed with traditions or financial expediency.

For plain textiles sold either as a staple or as a raw material for converters, this is perhaps not a serious matter. These goods usually will sell for a very narrow margin over cost; but by virtue of the large quantities in which they are manufactured, they can be made to show a satisfactory profit under careful management. Marketing of such textiles is essentially like marketing any other staple commodity. The main requisites are volume and complete certainty that the margin, however small, is above and not below cost. In the sale of these staple goods the elements of style or fashion and the whole aggregation of real or fancied values growing out of design are secondary. In so far as they are affected by these influences, it is mainly as materials rather than as finished products. They are absolutely separate and distinct, in most phases of their marketing problems, from textiles in which color or design is an important element.

Not only do designed textiles as a whole differ from plain goods as a class, but they differ widely among themselves. It would not be profitable to go into all the variations of subdivisions, but one great distinction is clear and should be kept in mind, namely, the contrast between popular selling fancy fabrics on the one hand and new creations on the other; or, to return to the figure of speech used above, the distinction between popular reproductions of pictures (no matter how creditably done) and original paintings themselves. In practice, creative new designs and "best sellers" may be side by side in the mill, but that does not alter the fact that they are essentially different kinds of merchandise. A popular seller must be put out on a sharply competi-



tive price basis. These products tend to drag new creations with them down to a staple goods basis, notwithstanding the fact that there should be fundamentally no more relation between the price of new creations in textile design and the price of staples than there is between the price of a great painting and the price of painters' canvas on which the design was spread. But in the case of textiles and wearing apparel, the new creation is expected to pass into the large-volume reproduction stage by virtue of its success as a design. It may become fashionable. This makes it necessary to examine critically the nature of styles and fashions in clothes.

Styles and fashions are extremely elusive and difficult subjects for discussion because they are in the nature of states of public habit. There seems to be a general swing of fashions, which in turn is made up of numerous style experiences. In any one season, skirts are all very long and full; six months later these very skirts look ridiculously secretive and wasteful compared with what the vague but universal "they" may be wearing. Similarly, printed foulards suddenly become "common," only to give way to plaids or solid-color crêpes. Many fabrics and garments, intrinsically as good as on the day when they were made, suddenly become obsolete and unsalable. Who decide for themselves? How is the decision made? And what does this constant changing mean to the textile industries and trades? In attempting to answer these questions it should be remembered that in the life of fashions there are two types of movement going on at any one time. A flock of birds furnishes us with a vivid analogy. There is the general movement of the flock, and within that there is the flight of each individual bird. There is the general trend of fashion and within that there are the separate movements of numerous styles.

The style problem as related to textile production is further complicated by the fact that there are two seasons in each year—light-weight and heavy-weight—of approximately equal length and involving more or less complete new starts in pricing and production every six months. The style changes do not completely coincide with these seasonal changes, but the radically new ideas usually are brought out at the season openings. Sometimes they develop rapidly and sometimes slowly. In any case, the complete life history of any particular vogue falls into five fairly well defined parts—(1) creation; (2) adaptation; (3) popularization; (4) large-scale production; (5) abandonment—but it must be kept in mind that these together make up the general or flock movement in which individual styles are coming and going. This

subdivision of fashion's life history should be remembered in connection with the distinction above made between *creative lines*, which are mainly concerned with creation and adaptation of designs, or the first and second stages, and the *popular selling lines*, which have to do mainly with the third step and also are vitally concerned with the fourth, mass production. Abandonment comes to both creative style lines and to popular selling lines, although not always simultaneously.

It should be observed also that these steps in the life history of a mode are of varying length. Creation may be carried on over months, or may result from a stroke of genius and develop with great rapidity within a few weeks. In other words, a new style, once before the public, may become commercially important at once; it may fall flat and be immediately abandoned; or it may merely arouse enough interest to justify further effort to develop it into a popular mode, although it may not become popular for several months. Similarly, the adaptation process may be successful at once, while in some cases it can be said to be complete only after weeks of trial and apparent failure. Large-scale production of style goods, on the other hand, is a relatively long process. It can be effected properly only after planning and preparation, involving a careful testing of the market on the one hand or to be too far behind demand on the other. And the final stage—abandonment—is as uncertain in detail as any of the other steps. Only one thing is sure, namely, that abandonment will come some day and that it will be complete. It may come overnight, it may be months in developing, but usually the swiftness of abandonment is in direct ratio to the success and popularity of the style.

Each of these steps in the life history of a style merits some detailed description if we are to understand fully its economic significance. The public conception of none of them is in precise conformity with the more important facts. Indeed, it may be impossible for anyone to set down the more significant facts so as to meet all ideas which are current concerning them even among the participating trades in industries. But some of the outstanding features ought to be stated, even if the statement may not be wholly satisfactory.

The creative stage is the most spectacular and the most generally discussed of the five. For women's wearing apparel, most of the styles originate in Paris. For men's styles London is the most widely accepted style center. But since women's styles and fashions are more variable than men's, perhaps we can keep our ideas clearer by following them alone and as applied to outer clothing only.

The couturiers of Paris are referred to generally as the dictators of fashions. As a matter of fact, they could more accurately be described as persons engaged in trying to build a reputation as style leaders by drawing from all sorts of sources ideas with which they hope to catch the public fancy. Back of the couturiers are the designers of fabrics, laces, embroideries, trimmings, and other dress parts. It is an important part of the couturier's task to know what these designers are doing and to work with them in the development of new colors or new effects. The couturiers are thus assemblers of existing new creations as well as designers on their own account. Their designs are based on current waves of popular interest—a color scheme from Egypt, a flowing line from India, some new or revived idea in draping or in fabric or in decoration based on some popular interest likely to prove attractive by the time large-scale production can be made effective.

It should be made plain that these creators of fashion really have two separate purposes in mind. One purpose is to establish and maintain a reputation as original and dominating creators; the other is to make a limited number of garments to be sold at a high price to a small circle of clients drawn to them on account of this reputation for leadership. They are the portrait painters of the textile business. The few gowns they make are sold at "high art" prices. It should be remembered, however, that even at these high price levels the business is sharply competitive.

There has been an important and somewhat confusing change in the couturier's position in the trade during the past few years. A generation ago, the leaders made gowns for only the royal or the very rich. These creations might stir up a furore in those social circles where they were shown and be widely imitated in the course of time. Prominent actresses took to originality in dress a few years ago and retained these creative artists to make their clothes for stage wear or for public wear at watering places, at resorts, or at the races. Later these designers, pleased at the boom in business following successful creations, put new garments on their own mannequins to wear to the races and other much frequented places and spared no pains to get their creations talked about. Still more recently, the buyers for many American stores and garment makers have made it a business to go to Paris to see these new creations and to purchase some, either for copying here or for modification to suit American taste. Since the war, the American trade buyers have become an outstanding factor in the French "openings."

The process of adaptation follows closely on the heels of creation.



The adaptation of these Paris creations to wide use in the market has already been likened to the process of making reproductions of art works at a price which puts them on a commercial basis. This process is a complicated one in details but comparatively simple in principle. The following quotation from Paris cable dispatches taken from *Women's Wear*, a New York daily afternoon paper devoted to the women's apparel trades, for February 1, 1924, (the dispatch being dated from Paris on the day of publication), gives some idea of how the first news of these Paris creations reaches the country:

By Wireless

Copyright, 1924, Fairchild News Service

Paris, February 1.—In the Germain collection, silhouettes are straight and short, including many tunics on slim, narrow lines. There is evidence of much pleating, including jabot effects. Three-piece costumes of georgette, consisting of dress and cape or paletot, are a feature of the collection.

Satin is especially noted, particularly fulgurante, with fulgurante lamé for evening use. Clipped ostrich is the favored trimming for the evening types.

Thus far in this account of the growth of a style, attention has been devoted largely to garment styles. Changes in fabric styles and the resulting problems in production and distribution are interwoven closely with them. Even at the French openings, as the above report shows, fabric makers are on the watch for new ideas, although many of them will already have had their design operations under way in anticipation of the market's preferences for several months to come. In fact, it is not uncommon for a mill to be a full 12 months ahead of the consumer's purchases in its efforts to guess what the consumer's wants are going to be.

The further course of fabric style development should be traced briefly. For example, in anticipation of the fall season of 1924, many mills made their preliminary designs in September of 1923. In October of 1923, the tentative designs which had been drawn to the number of perhaps 1,000, or perhaps 1,200, had been reduced by a process of elimination to, say, not over 600 variations of a relatively few patterns in various color combinations. As a result of the judgment of salesmen and others likely to gauge the market well, these sample suggestions were still further reduced by the end of the year 1923, and enough sample lengths were made to enable the mill to know what it could quote as prices when their lines were formally opened to the trade about February 1, 1924. Thus when the couturiers were opening their



light-weight season garments, the mills were opening their lines of heavy-weight fabrics.

After the openings of the mills' heavy-weight lines, there normally follows the period of waiting and solicitation, during which the aim of the mills is to get enough orders ahead to keep a reasonable amount of machinery active. By June the direction of the fashion trend for the new heavy-weight season will be fairly clear. By July, if the season is at all typical, the market will have become clamorous for goods which cannot be woven in time to be made into garments for delivery before the fall peak of public demand has passed. There is, of course, a general trend of fashion, and success in style lines depends largely on ability to forecast this trend.

All the confusion and uncertainty due to the shifts in the character of demand would be costly enough if the original creator of new things were sure of the proper rewards for his originality and if the wise forecaster of the future were sure of the proper compensations for his good judgment. But when to all these necessary uncertainties there is added the confusion due to free and unrestricted piracy, the result is a costly and ruinous state of chaos. There is no adequate or feasible copyright or patent protection for textile or garment designs. Each originator of a new idea of merit must reckon with a flock of pirates ready to use all the arts of imitation to skim the cream from the market while the idea is popular and new, and to hasten its abandonment by making it common and vulgar through cheap and tawdry imitation. One result is that as a precaution against design robbers each creator is obliged to make all his early moves with utmost secrecy and must, if possible, complete his sales and withdraw from the market within less time than these commercial highwaymen require for getting into action.

#### *Dry Goods Manufacturers' Trade-Mark<sup>4</sup>*

(1) The guerilla warfare which American designers and manufacturers have conducted for years on the supremacy of Paris as the world's arbiter of fashion can hardly be said to prove very effective today, but there is one line of strategy which we believe has the possibility of a substantial success, and that is the creation of a real prestige for the trade-marks of individual American manufacturers. It will be attained only by slow, intelligent, and persistent effort, and it is essential in the first place that the facts in the situation be clearly

<sup>4</sup> From (1) "The Siege of Paris" (editorial), *Dry Goods Economist*, November 20, 1926; (2) "Trade-Marks Pro and Con" (editorial), *ibid.*, December 11, 1926

understood and the nature of the enterprise thoroughly comprehended.

French fashion supremacy was a relatively slow growth and, apart from the natural genius of the French people for artistic expression, was due to the individual efforts of the great designers.

The successful establishment of the trade-mark of an American manufacturer as a synonym for style must depend, however, in large measure on the cooperation and approval of the American retailer. The establishment of the trade-mark of a manufacturer would be a guaranty which should substantially enhance the distributor's good will. In the second place, it would establish a staple and a standard which is sorely needed in the ready-to-wear industry. This question of manufacturers' trade-marks is, of course, an old one, and the principal objection which is always raised is that the retailer wishes to trade on his own reputation and to build his good will around his own name. However, not even the most famous department store hesitates to use as a selling point the fact that a garment is a model of Patou, Jenny, *et cetera*, and the only reason they do not use the same argument in the case of an American designer is that no American name at present carries the same weight to the consumer. The name is certainly not suppressed because of inferiority in the merchandise. Moreover, the use of the name of an American manufacturer and designer need not detract in any way from the good will or prestige of the retailer. He can still use his own label, and merely supplement it with some such phrase as "Model of so-and-so."

The great American retailers spend enormous sums yearly to maintain their Paris collections, and while it will be a long time before they can free themselves from the domination of the Paris label, every step in that direction will mean a substantial cutting in the ever-present nightmare of overhead.

(2) A number of clothing merchants opposed to manufacturers' labels based their opposition on these grounds:

"If every manufacturer does it, a label will soon lose its identity and mean nothing any more."

"If there are any benefits to be derived we, as advertisers ourselves, would prefer to have the benefits in our own name rather than in the name of the manufacturers."

"Competitors will see the name of the manufacturer in the garment and try to buy same."

"We cannot think that a manufacturer's label would help to sell gar-

ments. It would take years of advertising any label to make it worth while."

"We find that whenever trade-marks are featured and this same article is sold by different retailers, it is very likely to drift into a price war."

"We doubt very much that women can be induced to trust the national advertisers' claims in regard to garments, rather than to rely upon the integrity of the store from which they are buying."

"I believe that the customer is more interested in the store that is selling the garment than in the maker, because should complaints arise she will go to that retailer rather than to the manufacturer."

The retailers who took the opposite side had this to say:

"The trade-mark helps if it stands for something. It is the fit, the style, and the workmanship that really count."

"If a trade-mark were valued today as it was several years ago (by the manufacturer or owner), then, in our judgment, nationally known merchandise would be of exceptional value."

"Yes, if nationally advertised and tied up with store name and local advertising."

#### *Rayon Underwear Advertising Campaign<sup>5</sup>*

The purpose of a recent advertising campaign is to impress upon the consumer the name "Amray Fabrics," in connection with lingerie made of rayon, "Amray Fabrics" being the product of the American Rayon Products Corporation. This corporation is a consolidation of six mills, the business of which is to buy rayon, the yarn, and make it into rayon, the fabric, and then sell the fabric to makers of rayon garments and to the piece goods departments of department stores. That the rayon fabrics manufactured by the American Rayon Products Corporation may be distinguished from rayon fabrics made by other mills, they have been given the name "Amray Fabrics." The output of the mills in the American Rayon Products Corporation group is said to represent approximately 50% of the entire rayon fabric output of this country.

#### *Linen Damask Manufacturers Advertise<sup>6</sup>*

Beginning with September issues of seven women's and class magazines, the Irish and Scottish Linen Damask Guild will put before the public an advertising campaign aimed to increase the sale of linen

<sup>5</sup> From *Printers' Ink*, November 5, 1925, p. 33.

<sup>6</sup> From *Printers' Ink*, August 26, 1926, p. 36.



damask tablecloths and napkins. This campaign will go out over the guild's name.

Linen was difficult to obtain during the period of hostilities, and the public consequently went in for luncheon sets and doilies to use on highly polished tables. This use of such sets cut into postwar sales of tablecloths and napkins, and individual manufacturers were forced to search for a way out of this unsatisfactory situation.

Although as a group the manufacturers had decided that the way to get business was by national advertising, none of the individual producers had what he considered money enough to undertake alone a proper advertising campaign. As a result, the Irish and Scottish Linen Damask Guild was formed, for the purpose of bringing linen damask once more into favor and to accomplish this by a joint advertising effort.

### *Misbranding of Textiles<sup>7</sup>*

A cooperative body, organized to promote a campaign against misbranding and misrepresentation in the sale of textiles, is actually in existence and actively functioning. Among the organizations represented on the committee are the American Association of Textile Chemists and Colorists, the Association of Cotton Textile Merchants, the Converters' Association, the Cotton-Textile Institute, the Laundry Owners National Association, the Master Dyers Association of Philadelphia, the National Association of Finishers of Cotton Fabrics, the National Better Business Bureau, the National Retail Dry Goods Association, the National Wholesale Dry Goods Association, and the United Upholstery Manufacturers Association.

### *Standardization Problem in Dry Goods<sup>8</sup>*

(1) Due to the rushing of the season, retailers have for a number of years been forced to liquidate their current season's stocks before the profitable period really sets in. For instance, they begin to sacrifice their summer stocks as early as the latter part of June and carry it through July and August; liquidating the fall and winter stocks is started as early as the latter part of November and continued through December, January, February and part of March; whereas June, July

<sup>7</sup> From *Dry Goods Economist*, December 18, 1926, p. 14.

<sup>8</sup> From (1) "Rushing the Season—A Merchant's Views" (quoted from Mr. Julien Caheen, of Caheen Brothers, Inc., Birmingham, Alabama); (2) "Misinterpreted" (quoted from Mr. Charles Cheney, president, Cheney Brothers), *Dry Goods Economist*, November 27, 1926; (3) "Running to Extremes" (editorial), *Dry Goods Economist*, January 8, 1927.



and August should bring a profit on summer merchandise and November, December, January, February and March, the coldest months, should bring a profit on heavier apparel.

On the other hand, current stocks should always be gradually lowered for the purpose of securing turnover and getting ready for newer merchandise. This operation is all right if done in an orderly and sensible manner so that demoralization of the current demand is not brought about. Furthermore, it is proper to have a small stock of the advanced style in reserve to satisfy any early demand.

Conditions are such today that spring and summer merchandise is manufactured and offered for sale in winter and fall and winter merchandise in summer. The manufacturing and selling of merchandise should naturally be in accordance with nation-wide weather conditions; or, in other words, a complete reversal of the present method is in order.

(2) The suggestion that the industry would benefit through the collection and distribution of exact information as to style is one that readily arrests the attention, and it may easily be accepted if not analyzed very carefully. I am quite free to say that the suggestion does not appear to me to offer any hope of a solution of the silk industry's difficulties. In fact, I feel that the dissemination of standardized style information would probably intensify rather than alleviate our troubles. Standardized styles must inevitably lead to unstandardized prices. If everybody produces the same thing at the same time, there is no room for merchandising skill or house preference built upon style leadership and a record of good performance. As soon as everybody has the same style information and all producers come to the market with identical or similar wares, we have a condition which invites instant and disastrous price cutting.

(3) The stormy discussion about hand-to-mouth buying has somewhat moderated as the realization has grown, on the one side, that a return to the old system of heavy advance buying is impossible and, on the other hand, that short-order buying has had one highly beneficial effect in keeping down inventories and eliminating the danger of excess stocks. At the same time, manufacturers in general maintain their contention that hand-to-mouth buying is having a seriously disorganizing effect on the production machinery of the country and is also causing real injury to the retailers themselves.

The so-called hand-to-mouth buying system is here to stay because of the enormous and growing domination of the style factor in all lines of merchandise, and whether the system is good or bad it is something

beyond the control of either manufacturer or retailer, and therefore they must both adapt themselves to its demands.

Mr. Stein, of A. Stein and Company, of Chicago, says:

What is the result? Buyers are being forced to work day and night in an endeavor to keep their stocks in fairly good shape. They are overworking themselves along wrong lines. Instead of devoting their time and energy to the profitable task of selling and merchandising their stocks, they are compelled to sacrifice much of their efforts in making up small orders and trying to get deliveries of merchandise at the last moment. Instead of reasonably anticipating requirements in one order, hand-to-mouth buying policies require that a half dozen small orders be issued, incurring a formidable extra expense to them in receiving, marking, checking, and billing, to say nothing of extra freight or express charges. The burden on their sources of supply is assuming proportions out of line with the close margin of profits upon which manufacturers are now working. It's inevitable that someone must pay the cost of not carrying stock.

In this particular instance there is another fundamental merchandising evil, and that is lack of proper analysis and control of business costs. The merchant who pays 10 to 15 cents extra cost a dozen for his hosiery because he has reduced short-order buying to the absurdity of parcel post packages is not stupid, but simply does not keep track of what his business is costing him.

#### *Effect of Style on Distribution Costs<sup>9</sup>*

Business men know something about what is being done by the Department of Commerce, inspired by its Secretary, Herbert Hoover, in the establishment of standards for the reduction of waste. In this work the Chamber of Commerce of the United States has taken an active part, which has been participated in particularly by the Fabricated Production and Domestic Distribution Departments. But when we come to style we enter a difficult subject. Retail merchants must buy for resale the merchandise which their customers are going to demand. They cannot always tell beforehand what will sell. Shoes used to be almost staple, varying very little in style from one season to another. Today the style changes in shoes are not only every season but sometimes two or three times in a season, and what the change or when the change can be only a guess.

For women's garments the fall season begins about the middle of September, but the store buyers must be in the market by the middle

<sup>9</sup> From A. Lincoln Filene (treasurer and general manager, Wm. Filene Sons Company), *Dry Goods Economist*, October 6, 1923, p. 31.

of the summer; while for men's fall merchandise, the purchases are made in the spring. As a protection against the danger of overstocking through errors in judgment as to what the styles will be, the first purchases are made with great caution, supplemented later with larger orders as the anticipation of style preference becomes a certainty. Even with the best judgment which can be displayed in such matters, the mark-downs in one store for the past year amounted to almost exactly 10% of the sales.

In staple lines of merchandise the purchase price is the most important factor and is utilized by the chain stores in their bulk purchases of merchandise at the minimum of cost. The Retail Research Association applies this very effectively for its members. As an example of the savings that can be accomplished on such a small thing as hair nets, we recently bought a hundred gross of hair nets cooperatively with the other members of the Association at a saving of 35% over what we had previously been paying for them. And as a general result of this policy of cooperative buying, savings of from 10% to 20% are frequent. The savings are, of course, reflected in the selling prices.

### *Quick Turnover Is Economic Ideal<sup>10</sup>*

We have been studying the problem of distributing merchandise for more than twenty years. The first link of what is now the J. C. Penney Company chain was opened in Kemmerer, Wyoming, in 1902. Today, the company has 475 stores doing business in 33 states. The total business for the first year was less than \$30,000. This present year [1923] we expect to do upwards of \$65,000,000 cash business.

Naturally the problem of distributing merchandise through the units of our chain has gradually grown to be more and more complex; consequently, we have approached the problem of distributing merchandise in different ways at different times. When the stores were few in number and the average individual annual income comparatively small, the managers came East every six months for the purpose of buying merchandise. This plan proved satisfactory for a time; but as the store units increased, the number of managers all trying to buy at the market at the same time became so great that the operation was unwieldy and more or less unsatisfactory. We then had to seek for new methods of buying.

Our next step was to establish a buying organization in New York. The buyers were men who had been brought up in our own stores and

<sup>10</sup> From J. C. Penney, of J. C. Penney Company, *Dry Goods Economist*, October 6, 1923, p. 173.



know our method of doing business; but we soon discovered that, no matter how well the buyer was acquainted with our plan of operation, he could not buy as intelligently for the local store as the local manager could. We then inaugurated still another method, which is working out most satisfactorily.

We sent out, twice a year, our New York, St. Louis, and St. Paul buyers to meet our managers at five different points—Cleveland for the far eastern stores; St. Louis for the southern and central stores; St. Paul for the northern and central stores; Salt Lake City for the Mountain Region stores, and Portland, Oregon, for the Northwest and Pacific Coast stores.

Buying for rapid turnover is the first and greatest consideration. It might be well to state that the aim of the J. C. Penney Company is not, and never has been, to make large profits, but rather, small profits on a large volume. In fact, I think in this is to be found one of the greatest secrets of our success. Our plan of buying does not make it necessary to lay in large quantities. It is no uncommon thing for some of our stores to get from six to eight complete turnovers in one year's time.

### *Cooperative Buying of Dry Goods*<sup>11</sup>

A highly interesting development in the field of international cooperation in business is revealed in the recent visit to the United States of Pierre Bachelard, president of the great French chain of dry goods stores which operates under the name of Magasins Reunis. M. Bachelard's visit is for the purpose of completing details of a reciprocal buying agreement with one of the largest of American department store groups, and which parallels a similar agreement between the American organization and the great Tietz department store chain in Germany. It is more than probable that other American stores will later be added to this huge international association, and it is equally probable that the agreement presages similar arrangements between other store groups in this country and abroad.

The practical purpose which M. Bachelard and his associates have in mind is economy in buying in the international market. American goods for the French and German stores will be purchased through the American buying organization, and French and German goods for sale in America will be obtained through the purchasing departments of the Magasins Reunis and Tietz organizations.

<sup>11</sup> From "Cooperation's Advancing Tide (editorial), *Dry Goods Economist*, November 13, 1926, p. 13.



*Problems of Distribution Cost*<sup>12</sup>

Many theorists fail to understand the numerous obstacles which would stand in the way of the average manufacturer if he tried to distribute his product direct to retailers, and more especially if he aimed to sell the stores all over the vast extent of territory which is one of the great features of our country. To supply the needs of the retailer, the goods he needs must be readily available at the time he needs them. In the case of merchandise which has a seasonal demand, goods of the same kind may be in demand at an early date in one section and at a later time in another. And due to the diversified tastes inseparable from a vast territory and a population of one hundred and ten millions, merchandise must be selected to suit the tastes of certain sections. What sells freely in Wisconsin, for example, may be a drug in the market in Louisiana.

There is also the matter of selling. Advertising in the business papers can do much in this direction. But samples must be shown to the dealer, either in his own store or in the market. And while some of the larger department stores have a number of their buyers visit the market at frequent intervals, it is obviously impossible for the smaller dealer to do this, more especially if he be at long distance from the great distributing centers.

Here it is pertinent to speak of another highly important factor in dry goods distribution concerns that distribute the products of mills and factories to the wholesalers and to the largest retailers. These are the commission houses and the selling agents. They act as direct representatives of manufacturers and, in addition to their headquarters in New York, have in many cases branch offices in Chicago, St. Louis, and other large distributing centers. These houses serve the purpose, in so far as the wholesalers and the largest retailers are concerned, of selling the goods on the road and also in centers wherein many other concerns of similar character are located, thus saving the buyer the time and expense that would be involved in a visit to the mill or factory, and also enabling him to readily make comparison among all the competing lines.

Commission houses and selling agents, however, cannot perform the functions to which the wholesaler or jobber devotes himself. They are not in a position to sell goods in small quantities or in less than case lots. Their sales may embrace from five to a hundred cases, or more,

<sup>12</sup> From *Dry Goods Economist*, October 6, 1923, p. 25.

according to the character of the merchandise. The wholesale houses among the customers of commission houses and selling agents are in most cases concerns of large capital and possessed of extensive organizations.

It is the wholesaler, or "jobber," then, who performs a necessary service in the distribution of commodities through the retail stores of medium and smaller size which constitute such arteries of distribution centers—New York, Boston, Philadelphia, Baltimore, Richmond, Atlanta, New Orleans, Dallas, Los Angeles, San Francisco, Seattle, Spokane, Omaha, Minneapolis, St. Paul, Chicago, St. Louis, St. Joseph, Kansas City, Cincinnati, Indianapolis, Cleveland, Buffalo, and the like.

From such centers the wholesaler sends out his traveling salesmen, who carry to the retailer not only samples of merchandise, but also information as to market conditions and in many cases expert advice as to business methods. By the use of the auto these salesmen in many instances "make" three towns every day, whereas by the railroad they were formerly able to make only one.

The financing of his business is also simplified for the retailer through buying from a few wholesale concerns. Such houses know that their prosperity is bound up with that of the retailer, whereas the manufacturer, selling, as he would under the theoretical system which some theorists demand, to thousands of dealers, could take but little interest in the fortunes of each individual store.

The wholesale distributor also provides the retailer with full opportunities for the frequent stock-turns which experts in store management know to be so great a factor in successful and economical retailing.

It is true that in the department store business certain important lines are distributed by the manufacturer direct to the retailer. But these lines consist of merchandise which comes in individual pieces of high value and the profitable sales of which depend on their fashion qualities. In the present day, when a new fashion springs up and is accepted overnight, retailers who handle women's apparel, millinery, and so forth visit the New York market as frequently as is compatible with a reasonable profit. Thus large department stores as far away as a thousand miles or more send their women's apparel buyers to the market as often as every two or three weeks during the active seasons. Incidentally, it may be noted that the essential need for frequent visits to the markets, coupled with high railroad passenger and Pullman rates, constitutes quite an item in the operating cost of numerous departments.

The chain store is put forward by many of those who theorize as a

means of lowering distribution cost. That the chain stores have won for themselves a place in distribution cannot be denied. Nor can it be gainsaid that they have cut into the trade of the dry goods and department stores as well as into that of the single-line stores with which they compete. But in the department stores this competition has been apparent principally in small wares and similar goods carried by the "five-and-tens." And at that it may be attributed in greater or less degree to the failure of the department store managements to push such lines with due vigor and to adopt methods which would enable them more effectively to compete.

Chain store competition has been felt by the garment and millinery sections of the department stores only in the lower grade or so-called popular-priced goods. In connection with fashion merchandise, the department store owner has the advantage of the chain store concern through being in closer contact with his public and through knowing, by long contact and observation, the tastes and ideas of his public. In the millinery field many department stores are themselves chain stores as regards that department. That is to say, the millinery department is owned and conducted by some outside concern which makes a practise of leasing space in stores for that purpose. This outside concern may own and run as many as two hundred such departments in as many centers. In addition, it may own a similar number of millinery stores scattered up and down the country.

The J. C. Penney Company has between 300 and 400 department stores. Starting in the Far West, this concern has spread its stores over a territory as far east as Ohio and is now planning to increase the number of its stores to five hundred. The Grant stores, though selling at prices below a certain limit, are practically department stores and are located in numerous centers.

Some of the largest and most famous department stores in several centers in this country are in a measure chain stores. There are several groups of such stores, each group owned and directed by its central organization, though each store has its own management, buyers, and other executives. In North Carolina and South Carolina there are the Belk and Efrd groups, in the Central West there are the Rorabaugh stores, in Texas there is the Graham-Sykes organization, in New England the Goodnow-Pearson Company has stores in nearly a dozen centers, and these are only a very few of the really numerous department store concerns which have all the way from three stores to a score or more of branch establishments.



In the women's apparel field we find the Oppenheim-Collins interests, with stores in several cities, the Klines, the Frank and Seders, the Siegels, and so on. It is clear, then, that the dry goods retailers have realized whatever advantages the chain proposition presents and in many instances have succeeded in taking advantage of them.

In some stores delivery is no longer free, as regards goods bought in the underprice basement. But the stores where this obtains are few, and in no instance has a charge for delivery proved feasible in connection with the store as a whole. One of the leading stores in Boston adopted the plan of charging 50 cents a month for the privilege of having a charge account, but the innovation proved so unwelcome to customers that it had to be abandoned. In the matter of delivery, consumers are apt to be especially unreasonable in their demands for promptness. In a city like New York, where visitors from other centers are numerous, stores in the shopping district are constantly called upon to rush purchases to hotels in time for the customer to catch a certain train.

#### *Standardization of Sizes for Knit Wear*<sup>13</sup>

To further their campaign for standardization of sizes and measurements of knitted underwear, the Associated Knit Underwear Manufacturers of America have established a fellowship at the United States Bureau of Standards. Mr. Roy Am Cheney, secretary of the Manufacturers' Association, at Utica, New York, explains in a letter sent out in 1923 to members of the association, "we will standardize on sizes and measurements for our products, determining and taking into consideration tensile strength of different counts of yarn, elasticity and wearing qualities of all types of knitted fabrics, proper sizing of men's, women's, children's and infants' underwear, and the determination of proper cutting and finishing measurements for all kinds of knitted fabrics, so that a garment bearing a label designating a certain size will fit a man or women of that size, whether it is flat wool, ribbed or balbriggan, shirt and drawer or union suit."

Manufacturers producing garments conforming to the adopted standards will be permitted to use labels stating that the underwear is "U. S. Standard Size," Mr. Cheney states, but such permission will be in the form of licenses granted only after strict examination and inspection to manufacturers whose products conform in every detail to the requirements. The association will control the issuing of licenses to use these

<sup>13</sup> From *Dry Goods Economist*, October 6, 1923.



standard-size labels, it is pointed out, but any bad faith on the part of any manufacturer will result in immediate conflict with the Federal Government, with resultant publicity in connection with revocation of his license. Extensive advertising is planned to bring the label and its significance into prominence.<sup>14</sup>

### THE STYLE REVOLUTION<sup>15</sup>

I am speaking primarily of textile production which has become suddenly and deeply involved in the perplexing problems of style design and style change. It is only as style has become a more and more dominating factor in production and distribution that the necessity for cooperation between manufacturer and retailer has come definitely to the fore.

#### *Economic Influences at Work*

There are, however, three main influences which have brought about the need for closer understanding between the manufacturer, the converter and the jobber of textiles, and the retail distributor. The first of these influences was at work before the war. Economists and students of business relationship had discovered that there was inevitable waste in all industry, because of the growing complexity of distribution of goods and the number of steps through which goods had to pass on their way from the factory to the home.

As this conviction has grown among business men, new and simpler forms of distribution have appeared. In this process we have found the manufacturer setting up retail outlets of his own, and the retailer setting up manufacturing plants under his control. We have found, for instance, a large wholesaling house like Marshall Field developing its manufacturing plants selling directly to the retailer, both large and small, and we have houses like Brown, Durrell, of New York and Boston, originally recognized only as jobbers, which have gone into the manufacture of goods to serve their retail customers. Only recently you may have read of a group of jobbers, some ten or twelve in number, who have cooperative arrangements among themselves to have manufactured a brand of hosiery which they will sell in common.

<sup>14</sup> EDITOR'S NOTE. It is to be remembered that these are plans reflecting a need of the trade and that they are not yet in operation.

<sup>15</sup> From A. Lincoln Filene, "Production and Distribution," (an address before the 31st Annual Convention of the Cotton Manufacturers Association, Atlantic City, N. J.), *American Wool and Cotton Reporter*, Vol. 41, No. 20, May 19, 1927, page 116.

*Chain Stores and Syndicates*

The second influence which has made inevitable a policy of cooperation and closest contact is the growth of chain stores and buying syndicates. This factor in our economic life has grown in late years by leaps and bounds. Starting with the now familiar food, drug, and five-and-ten-cent store chains, we find many examples of department store chains which are constantly opening up new retail outlets. Parallel to the department store chain movement is the movement for consolidation of established stores. The Associated Dry Goods Corporation, of New York, comprises 9 stores, including Lord & Taylor's and McCreery's, each unit maintaining its own individuality, but all to a large extent buying and planning their business activities in common. The R. H. Macy Company has begun a chain development by acquiring control of two department stores, one in the South and one in the Middle West. The Gimbel Company now operates five stores. The May Company store group does a business in excess of \$100,000,000 a year.

*The Largest Department Chain Store*

The largest department chain store is that of the J. C. Penney Company, which now has over 800 stores and is continuing to grow. From 1925 to 1926 its volume of business increased 27%. Its estimated sales for 1927 are \$150,000,000. Then we have also the resident buyer, who purchases in large lots for small and large retail stores scattered throughout the country. Nor must we omit the fast developing chain of retail stores established by mail order houses.

The Filene store is affiliated with seventeen other stores, located in seventeen prominent cities. Each of these stores is independent financially and in its administration, but all have been to an increasing extent buying merchandise as a group, and imitating in a variety of ways each other's successful methods of operation.

*Style the Final Influence*

The third influence is style. Within the last few years the factor of style has become of such magnitude in production and merchandising that in many lines it seems to eclipse all other considerations.

Now two or three styles which arise and displace one another within a single season are not unheard of. Because style is short-lived and when dead is very dead indeed, the retailer has been obliged to revamp his mode of operation accordingly. To avoid disastrous mark-downs

he must not have overstocks. Elaborate systems of stock control and control of buying through merchandise managers have come into vogue.

Competition has obliged the retailer in the last five years to do business only with those concerns, whether manufacturers or wholesalers, which were in a position to fill his definite retail needs. He must deal with concerns which had so definitely the style point of view that the retailer could confidently make use of their style judgment to supplement his own. Finally, he must deal with concerns which had facilities for filling in his stocks after widely selling numbers in the original purchase were exhausted.

### *The Old Way and the New*

For years, as far as the textile manufacturer was concerned, direct cooperation with the retailer was almost nonexistent. When a seller's market prevailed, when quality and reliability were the controlling factors in retail merchandising, when a jobber could with safety place his orders six months in advance, when the retailer could order large stocks ahead, textile manufacturing had every reason to be what it largely was, a contract business. The converters closest to the market could easily watch style change, and the jobber and retailer could take their cue from the combined judgment and reputation of the mill and the converter.

The result of this method of doing business was to leave the textile manufacturer largely unprepared for the change which accompanied the transition from a seller's to a buyer's market. When the style revolution broke, the manufacturer largely did not know, because he had never before had to know, what his retail outlets were.

### *What Cheney Brothers Did*

Let us contrast this situation for a minute with one in the silk industry, which is a younger industry and one that could adapt itself more easily to the new economic situation. We have a New England example—Cheney Brothers. When style became so definitely a factor in the purchase and sale of silks, this concern resolved to make the retailer increasingly dependent on it by putting its best talent into the creation of style fabrics. Cheney supplemented this style effort by an appeal to the consumer through national advertising. Through the exceptional work of their stylist they discovered as a most valuable by-product of style design that, within certain limits, style could confidently and successfully be predicted.

A statistical study of styles (originated by their own and other



houses), which had gone well in previous seasons, demonstrated that there was a substantial carry-over of styles from season to season, with, of course, certain variations. This study demonstrated further that even new styles bear relationship to previous styles which could be defined, and that absolute novelty styles were but a small percentage of their needed production. As a result, Cheney Brothers were able to manufacture in advance of orders, with reasonable surety that the style merchandise which they were creating would be later in demand by the retailer.

Certain successful cotton textile manufacturers maintain style organizations which study style trend in Europe and at home and influence in an important way the design of these manufacturers' products. Identifying of merchandise under the manufacturer's name and the advertising of this merchandise to the consumer, create a demand which the retailer is bound to respect. The maintenance of service stocks, either by the manufacturer himself or by arrangement with jobbers, seems bound to become a large factor in textile distribution.

As style continues to spread over a larger and larger range of items, specialization of manufacture to meet the needs of a particular market is bound to develop. Even the manufacturer of gray goods, who does not know the final destination of this product, would be more sure of continued production and profit if, like the manufacturer of finished goods, he would study the needs of the final market for his goods—the retailer. Only by an accurate check of consumer trend, which means a close following of the retail demand, can he determine with accuracy the type and probable quantities of gray goods which will be in demand for the uses of the consumer market he is finally trying to serve.

Just as we have seen retail stores gaining strength in their dealings with producers through chains and consolidations, so it seems evident that we may expect mergers, both vertical and horizontal, to appear in the field of textile manufacture. In these and in other ways, the textile manufacturer will adjust himself to the new order of things.

### *Style Departments*

I have spoken of textile manufacturers who maintain style departments. There are retail stores which maintain style departments. The one with which I am connected does so. We have women who go to Europe and to leading resorts in this country to try to find out what is significant in the shifting panorama of fashion, and who, in numerous other ways, are studying style demand, present and in prospect. There



is little or no coordination between the work of the manufacturer's style experts and the retailer's style experts. It seems most obvious that there should be.

A textile manufacturer told me not long ago that he had to get out 50 styles for every five that were a real selling success. The retailer, close as he is to public demand, is constantly buying merchandise which he supposes to be the vogue and which later costs him a mark-down.

## XXXIX

### MILLINERY

THE millinery trade is characterized by many producers producing on a small scale and ordinarily selling directly to small scattered retailers. With the manufacturing trade located largely in New York City in small units and the consumers widely scattered, there would seem to be the need of a wholesale trade of middlemen to carry assorted stocks at points more accessible to the retail trade. However, the style element is such an important factor in this trade and the changes of style come with such rapidity that direct contact between manufacturer and retailer seems to be necessary to avoid the risk of wrong selection.

Bobbed hair, the tailored mode, and the increase in circulation of magazines of national distribution indirectly have struck the jobber a hard blow. It is generally recognized by style experts that bobbed hair is set off best by the tailored mode. The tailored hat without the great array of variable trimmings is not an article of profit to a jobber. The jobber always has been of most importance in the trimming trade. A few years ago, when hats were highly trimmed and much embellished creations consisting of a plainly covered framework to be bent and changed and doctored up with the variety of vegetable and animal reproductions according to the whim of the local milliner as an artist and the housewife as a fastidious customer, the jobber did a big business in supplying the raw materials from which these creations were made. The parts could be of such standard form as easily to accommodate themselves to permanent and slow-turning stocks of the jobber.

With the rapid increase in national advertising, the increase in travel, and the widespread distribution of women's style magazines, style has become more nearly uniform throughout the country, and style changes tend to flash almost instantly across the country. Under such conditions, the jobber finds that he runs a great risk in maintaining stocks for any length of time. The style risk has become so great that in many cases the jobbers found their costs of doing business almost as high as those of the retailer, with the retail costs yet to be added to the consumer's price. Only a relatively few of the strongly intrenched jobbers have been able to stay in business.

The relatively large retail hat shop in the cities, including millinery sections of department stores, buy directly from the manufacturer, either in their own city or by means of frequent trips to New York. The small milliner in the country districts makes rather frequent visits to Chicago or some other accessible city to keep informed of style changes. She frequently orders an "assortment" of hats of a general type from some manufacturer, illustrated perhaps in the manufacturer's catalogue. Such an "assortment" is seldom sent on consignment but is usually an outright sale.

Traveling salesmen with sample trunks have practically disappeared from this trade. Aggressive selling has been supplanted largely by aggressive buying. That does not mean that it is a seller's market; quite the reverse. The hat manufacturing trade is badly disorganized, highly competitive, and generally in a rather unhealthy and hazardous condition.

Open floor stocks are kept by some manufacturers in New York, Chicago, and a few in other cities, from which retailers may select the exact hats they wish, have them sent immediately, and perhaps have them at the retail store in two days. In other cases, the retailer makes a selection of a general type of hats and the manufacturer is given an order to send an assortment, with more or less specific instructions as to styles.

New York is the leading hat market. Quite varied stocks are kept there. A large trade is carried on with the South, so that New York produces a quantity of the wide-brimmed garden hats as well as the regular tailored line.

Millinery is a large department in most department stores, and department stores are the largest outlets in most cities. But department stores generally find millinery the most expensive department they have and the most likely to show a loss. For this reason the millinery department is more frequently leased out to others than is any other regular clothing line. Several syndicates have been formed which make a business of the operation of a chain of millinery departments in independent department stores. One such chain includes millinery departments of 119 stores. Sometimes a flat rental rate is paid for the space. At other times a percentage on sales is taken instead. The lease usually includes not only space but light, janitor service, cashier service, and frequently delivery service as well.

Advertising of millinery is carried on largely by the retail stores, frequently as a department store advertisement under the name of the

store in which the department is located. Direct by mail advertising to former customers is much resorted to, particularly by quality dealers.

Women's hats cannot be standardized and branded satisfactorily so that the manufacturer may advertise a type or brand of hat. There are very few large makers that do a modest amount of national advertising, but none of them are particularly well known by consumers as a whole. Perhaps their advertising is largely for the purpose of attracting retail dealers.

The "Millinerateria," with a standardized price on an assortment of hats of various styles and colors which the purchaser may try on, make her selection, and purchase without any appreciable amount of personal selling effort, has made its appearance in most of the cities of the country. While there seems to be some room for this kind of a retail outlet for the cheaper grades of hats, it does not seem to be on the increase. Some such stores have found the soil and wear and tear of the rather aimless trying on of a great number of hats is an excessive cost more than counterbalancing the economy in clerk hire.

Personal salesmanship is of great importance in the retail trade in such style items as hats which are sold perhaps 90% for style and 10% for utility. In such a trade in highly unstandardized and unbranded goods, the retail sales person is the sole reliance of the purchaser for expert advice as to general style and specific adaptation to personality and costume. Since hats are no longer trimmed by the retailer, one of the requirements for peculiar ability on the part of the sales person is relieved.



## XL

### RUGS AND CARPETS

#### *Methods of Distribution*<sup>1</sup>

TALES are still told in Kensington of how the old-time manufacturer who had one, two, or three hand looms, would bundle a roll when completed on a wagon or push-cart and take it to Second Street, then the carpet emporium of the city, and after considerable dickering, sell it to the dealer; always "losing" money on every roll. The journeyman weaver was generally "boarded and lodged" by the proprietor. The small factories were, in many cases, the foundations for great establishments, through which the sons or successors of the originators gained considerable wealth.

In modern times there are four principal ways in which the product is distributed—by direct solicitation of the manufacturer, by selling agencies, through the jobber or middleman, and through the mail order houses.

We are obliged by force of circumstances to consume our own product in addition to several millions of dollars' worth of European and Oriental rugs and carpets imported each year. The necessity for buying abroad the great bulk of materials used, and the much higher wages paid in the United States, make it impossible to compete with Great Britain, Germany, and France; consequently there is practically no exportation of floor coverings. The wonderful growth of the United States with its enormous consuming power has been sufficient warrant for the increased number of factories and additional looms, of which Philadelphia has had a great share in recent years.

There are two seasons in the year. The manufacturer places on sale in the fall of the year the goods which are shipped to the retailer for his spring business, which opens about March of the following year, and the goods shown in the early summer are for the fall season beginning about September.

<sup>1</sup> From Philip A. Hall, *The Rug and Carpet Industry of Philadelphia*, issued by the Educational Committee of the Philadelphia Chamber of Commerce, 1917.

*The Nature of the Market<sup>2</sup>*

The carpet and rug mills of the United States supply almost the entire needs of the country. Imports in 1923, although of very substantial bulk and value as compared with previous imports, amounted to only 3 % of the total yardage of domestic production. The carpetings regularly imported are composed largely of handmade fabrics from the Orient and to a certain extent from European countries, though some machine-made products are taken. The domestic manufacturer's dependence on an export market is negligible.

Practically our whole output of wool carpetings is made on the power loom. Carpetings are divided into three main classes, carpets or roll goods, seamed rugs, and seamless rugs. Roll goods are narrow fabrics, commonly 27 inches wide, in which the design, if any, is repeated continuously throughout the length of the piece. This was the form of carpeting most popular a generation ago, but now the trend is toward the wider seamless rugs.

Between the rug proper and the roll goods stands the seamed rug type, woven in strips with or without a pattern and subsequently fitted together to serve to all intents and purposes as a rug. In case a design is carried, the matching of the various parts adds a complexity to the production of this type of carpeting.

As an accompaniment to the vogue for hardwood flooring in American homes and perhaps as a reflection of the growing interest in Oriental and Chinese rug types, there has risen a strong demand for goods made in one piece.

The carpet proper meets a well defined demand for use in public buildings as well as in the private home. Furthermore, the demands of our automobile trade are becoming of increasing importance to the industry with the expanding production of closed cars. In fact, since the recent low point of production was reached in 1919, roll goods have been made up in larger quantities, though they are not now so popular for home decoration as the seamless or seamed rug.

Carpetings differ not only in form; they vary also as to weave. The handmade knotted pile fabrics produced in the Near and Far East, and in limited quantities in isolated factories of Europe as well, are, in their finest forms, articles *de luxe*. Built up on a simple loom by the age-old laborious method of knotting the pile to the warp threads, these handmade rugs stand in a class by themselves. They can be woven

<sup>2</sup> From "The Wool Floor Covering Industry in the United States," *Commerce Monthly*, July, 1924.

in commercial quantities only in those lands where life moves slowly and human labor is relatively cheap. Months and years have been expended on the production of some of the beautiful examples of the hand-woven article.

#### *Machine-Woven Fabrics*

Obviously, American carpet manufacturers employing high-priced labor cannot be prodigal of human effort. They have therefore specialized in the weaving of floor coverings on power-driven machinery. Their production covers a wide range of fabrics, from relatively cheap wool and paper-fiber rugs to high-quality chenilles. Certain weaves, popular with one generation, are discarded by another, and manufacturers have of necessity adapted their equipment to the weaving of the types of carpetings most in demand.

Before the war the oriental rug was the chief floor covering import. Most of these rugs came from Asia Minor and Middle Asia, great quantities being handled in Constantinople. England, too, was a market through which passed a large volume of Oriental goods for re-export. War, famine, transportation problems and, more recently, difficulty in negotiating with the Russian authorities for the carpetings from Transcaucasia and other parts of Central Asia have played havoc with the trade through Constantinople. Nevertheless, in spite of the hindrances to commerce, Turkey is sending us today much more extensive shipments than it did during and shortly after the war.

Interesting as is the expanding import trade of this country in hand-made and machine-made floor coverings of high unit value, it is overshadowed by the domestic industry, which leads the world in the weaving of wool carpets and rugs. The movement toward expansion has been stimulated in recent years by the building activity of the country. That the domestic industry has attained the outstanding place it now holds in the field of carpet and rug manufacture is due in large measure, however, to its position in the largest consuming market for wool floor coverings, the American market.

#### THE ORIENTAL RUG INDUSTRY<sup>3</sup>

There is an established and growing demand for Oriental rugs sufficient to take care of larger production than can be offered, with the

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<sup>3</sup> By Ella Lavine, University of Chicago, 1927.



result that no aggressive trade promotion plan need be undertaken by the industry as a whole.

The Oriental rug industry is highly individualistic. The rugs are woven by hand by the natives in Persia, India, and China—all through the Orient. These people often spend many long months of careful labor on just one small rug. The natives who have to spend such long periods on the weaving of their rugs have no other means of earning a ready livelihood. Therefore the importers here often have to pay for their rugs sometimes as long as 14 and 18 months in advance. The importers are thus virtually paying the natives their wages while the rugs are being woven. This means that the merchants have their money tied up for months and months. Not only this alone, but they have to wait for weeks after the rugs are finished before they finally are on their shelves and ready for sale.

Here in the United States we have the importers who buy their rugs direct from the weavers and sell them to the final users. The private auction is commonly held in the salesrooms of the rug merchant in disposing of his wares. It happens frequently that there are many rugs of such exquisite beauty which can not be duplicated that the merchant feels the value for such rugs is best realized when a group of people who appreciate such rare workmanship are bidding against each other. It might be added that these auctions are conducted with more dignity and grace than those auctions prevalent in the tiny, sparkling jewelry shops on lower Broadway.

The Oriental rug is not a standardized product. Each one is different from the others. For this reason each buyer inspects his rugs carefully on the ground.

The Oriental rug is not in direct competition with the domestic rug and carpet. They are not sold to the same class of buyers.

There are about 250 importers, and probably all but a dozen are in New York City. Many importers in New York maintain a strategic position because they happen to have brothers or some other members of the family living in the Orient and buying up rugs from the natives. All large importers must have resident buyers. Most of these importers are Armenians and they employ Armenian salesmen.

Much of the advertising is placed in art magazines and cultural magazines. There is also some local newspaper advertising. The rug merchants often have men who have studied rugs for years come to lecture to an exclusive group of potential customers. Often the coming of these lecturers is announced in the local newspapers.



## XLI

### FURNITURE<sup>1</sup>

#### *Characteristics of the Industry*

THE manufacture of wooden household furniture is carried on in a comparatively large number of establishments located throughout the country, but with the bulk of production centered in the states of New York, Michigan, Illinois, Indiana, Pennsylvania, Wisconsin, Ohio, and North Carolina. Other states, including the New England States, Georgia, Missouri, California, Oregon, Minnesota, and many others have some production, but their combined volume is much less than that of the states named above.

Although individual factories are scattered here and there in a large number of states, the bulk of the furniture production of the country is in and about a few large furniture manufacturing centers, among the most important of which are Grand Rapids, Michigan, Chicago and Rockford, Illinois, Jamestown, New York, Evansville, Indiana, and High Point, North Carolina. On the Pacific Coast, Portland, Oregon, and Los Angeles, California, are rapidly becoming important centers serving the coast area. Development of the industry on the Pacific Coast is fostered by the high transportation charges on furniture shipped from the eastern centers.

There are several more or less distinct lines of manufacture included in the field covered. Case goods includes bedroom and dining room furniture, each of which presents its own problems of manufacture and distribution. Chairs include another rather distinct set of interests, shading off into and overlapping on the one hand with case goods, with which they are sold in suites, and on the other with upholstered furniture. Tables, while they represent a line rather separate from case goods, are not so far separated from chairs, with which they are sold in suites. Cedar chests probably represent as distinct a line of interests as any in the wooden household furniture industry.

Within each line there are various grades of furniture based on materials and construction. In case goods, and upholstered furniture

<sup>1</sup> From "The Furniture Industry and Trade," *Report of the Federal Trade Commission on the Furniture Industry*, January 17, 1923.

particularly, two pieces of identical outward appearance may be of very different materials and construction and therefore of quite different grade. Finally, added to the many different grades in which a given design may be produced, there is the multiplicity of styles and designs produced to tempt the buyer's taste. All these differences in design, construction, and materials make the furniture industry one that all but defeats efforts to standardize and grade its products.

Furniture manufacture is carried on by a comparatively large number of mutually independent producing interests. Even limiting its selection to firms capitalized, according to Thomas' *Register of American Manufacturers* (1921 edition), at \$25,000 or more, the commission's mailing list of manufacturers of wooden household furniture to whom schedules were sent in connection with this inquiry included approximately 800 firms. Some of these firms were located in practically every state east of the Missouri River, as well as along the Pacific Coast. The bulk of the production, however, centers in the Mississippi Valley, the Lake region, and the Atlantic seaboard states. Centers of particular importance are Grand Rapids, Michigan, Chicago and Rockford, Illinois, Jamestown, New York, and High Point, North Carolina.

Notwithstanding the fact that several rather separate and distinct lines of interest are included, furniture manufacturers are extensively organized in trade associations, a number of the strongest and most active being national in scope. Although furniture manufacture is carried on by a large number of separate and distinct producing establishments and although its product is not one that conforms to any definite standards of design, construction, or material, these associations, before and during the war period, developed extensive machinery for price control which, although it did not function as well during the period of falling prices, has been kept intact and is at the present time in excellent condition to continue its work as business conditions improve.

In the wholesale and retail trade, furniture of all lines and of all styles and grades in each line, as well as the product of many other industries, becomes the stock of trade of the merchant. Distinctiveness in style and appearance is becoming more and more important as the tastes of consumers come to demand furniture of better construction and more distinctive character. The stock is bulky and for its proper display requires a large amount of space, well lighted show rooms, and large storage space. Furthermore, except in the cheapest grades, styles change rather quickly, and a design that is quite popular one season may be almost obsolete the next, so that the retailer may find himself

with a considerable stock of furniture on his hands which he must sell at reduced prices. An example of this type is the highly colored enameled furniture, which had rather brief popularity. In the other and more stable designs and finishes the changes of fashion are less rapid, but the rate of stock turnover is rather slow, while advertising and selling expenses are high. Furniture, too, is a commodity for which the volume of demand, particularly in the more expensive styles of medium grades, is affected sharply by periods of business depression.

Furniture is a product in which individuality of design and finish is important, constituting an appeal to the artistic tastes of consumers. This particularly is true of the better grades of furniture. A number of different cabinet woods may be used alone or in combination with other cabinet and cheaper woods in the production of a piece of given design and finish. The exposed surfaces may be of solid wood or of veneers and built-up stocks of cabinet woods in various combinations with other cabinet woods or cheaper woods. Unexposed or only slightly exposed interiors of pieces, the essential feature of which is a cabinet inclosing shelves or drawers, are generally of cheaper woods than the exposed exteriors. For instance, the exterior of a given design and finish may be made of solid mahogany, or of solid mahogany in combination with mahogany veneered panels, or of mahogany veneers in combinations with solid parts of gum or birch. This exterior may be made to cover a very substantial and expensive or a very cheap and poorly constructed interior, depending upon the material and workmanship used. Consequently, change of styles, designs, and finishes, and various combinations of woods and constructions in both exteriors and interiors as a means of appealing to the tastes and purses of buyers are important elements in competition among manufacturers in their attempts to secure the greatest possible volume of trade and profit.

When employment is plentiful and wages high, people buy more and better furniture, while in times of depression they refrain from buying at all or content themselves with lower grades. Consequently, the retail furniture trade not only entails larger selling expenses than many less bulky commodities but it also fluctuates from season to season and from year to year with general industrial and business conditions. This fluctuation naturally affects not only the retailer but the manufacturer and wholesaler as well.

### *Methods of Marketing*

In territory that is at all adjacent to his factory the manufacturer



generally sells the bulk of his product direct to the retailer through salesmen and at the various furniture "markets" or exhibitions that are held from time to time in various furniture centers. It is only in territories remote from the factories, to which the cost of sending salesmen would be prohibitive, that the jobber or wholesaler handles any large part of the business.

In the West, the wholesaler or jobber is a recognized factor for practically all manufacturers east of the Mississippi. On the whole, however, the wholesaler handles only a minor part of the total furniture output of the country, amounting to probably not more than 15% to 20%.

In all sections of the country the retailer is the agency directly serving the consumer. There is very little direct selling by manufacturers to consumers. This form of distribution is objected to strenuously by retailers' organizations, and manufacturers generally conform to the wishes of the retailer and refrain from selling or attempting to sell directly to the consumer.

Undoubtedly, the wholesaler who stocks a number of lines can offer advantages of prompt delivery to the retailer and of larger purchases to the manufacturer. However, the fact remains that while a few manufacturers, particularly of the cheaper grades, sell the bulk of or even all their product to the wholesaler and jobber, a large majority of manufacturers of medium and better grades appear to sell less than 20% of their product through these channels, and these sales generally are, as stated above, to wholesalers and jobbers located in the territory most remote from the factory.

### *Furniture Markets*

On account of the multiplicity of styles produced in various woods or combinations of woods and in many different constructions, furniture is a product that does not yield itself to definite standardization either as to material or construction. Its purchase becomes a matter for the judgment of experts with the samples before them. The product itself is bulky and cannot be carried by salesmen to the retailer. In order to afford the best facilities for displaying samples for the inspection of buyers, the system of furniture markets or exhibitions are held periodically by manufacturers in various furniture centers such as Chicago, Grand Rapids, Jamestown, and High Point. At a "market" different producers rent floor space in the same or adjacent buildings and at stated periods (usually twice a year) display their goods for inspection



and purchase by wholesalers and retailers. Here wholesale and retail buyers can inspect the goods, place such orders as they wish to place at the time, and later, when the salesmen of the various manufacturers visit their places of business, can purchase more intelligently from the salesmen's catalogues and pictures. The furniture "markets" are uniformly closed to the ultimate consumers.

At these markets, which are financed by the manufacturers, a building or a part of a building is secured and space rented to manufacturers desiring to exhibit at the market. Semiannually it is the practice of all manufacturers exhibiting in a given market to have their representatives present at the exhibit for what is known as a market. The fact that a market will be held is widely advertised, and retailers in large numbers go there, inspect the various lines, and place such orders as they desire to place at the time. Later, when salesmen visit the retailers with pictures, the retailer can place further orders with the feeling that he has actually seen the goods on display at the market. Manufacturers generally bring out their new designs at the various markets, hence the retailer who visits the market is enabled to keep abreast of changes in styles and design as indicated by the bulk of the furniture shown at the market much better than he would be able to do if he merely awaited the visit of salesmen.

#### *Manufacturers as Distributors*

Manufacturers of furniture, as previously stated, generally sell the bulk of their output directly to the retailer, and in some cases also job or wholesale some furniture which they do not themselves produce. A scattering few are also engaged to a limited extent in the retail distribution of furniture. In general, the manufacturing, wholesaling, and retailing of furniture are conducted by independent concerns, and there is at the present time little indication that the three functions are being combined under one management to any great extent.

#### *Wholesalers*

Ninety-seven wholesalers of furniture gave information which indicates that the wholesale furniture business is predominantly carried on by mutually independent concerns which have little or no relation either with manufacturers or with firms engaged in the retail trade. Many retail stores do a little wholesaling, but it is generally too small to warrant their being considered wholesalers, except in the case of a few large department stores conducting both wholesale and retail busi-

nesses, of which Marshall Field and Company, of Chicago, may be cited as an example. The typical retail furniture stores and the typical wholesale furniture establishments, however, are generally not related to each other or to manufacturers by stock ownership or interlocking officials.

### *Illegitimate Dealers*

There has been a great deal of activity against the so-called "illegitimate" dealer, the dealer who carries no furniture on his floor but sells from catalogue or takes prospective customers to wholesale or even retail showrooms. When selling from catalogue he quotes a price to net him a small percentage, generally about 10%, of profit. Selling from showroom floor, he takes his customer to look at the furniture, then orders from the manufacturer, billing the customer at a small profit to himself. The larger dealers are the most active against this practice, as they lose the most by it.

### *Credit Prices and Installment Methods*

Furniture is very largely sold at retail on credit, sometimes of shorter, sometimes of longer duration. The question was therefore asked of each dealer as to how his prices are customarily made with respect to cash or credit payments. Only 78 out of 556 dealers reporting stated that they priced their furniture on the basis of cash at the time of sale; 21 priced on the basis of cash in 30, 60, or 90 days; 384 priced on the basis of installment or long-time credit; 8 of them said they carry two prices on the tag—one for cash and one for installment.

The forms of contract used by installment houses and the kinds of accounts kept with customers are of interest. Out of the 500 stores investigated using some form of installment plan, 100 used the conditional sale contract, 121 a chattel mortgage, and 195 use a form of contract that purports to be a lease, and speaks of monthly or weekly payments as "rental." Under both the conditional sale and the lease, the stores retain the title to the furniture until payment has been completed. Unfortunately, the purchaser under the lease form is often not aware of the nature of the contract he signed. When such a customer makes default before final payment, he may be surprised to learn that he has no equity in the furniture that is seized.

In the several instances where inquiry was made it was found that where a customer makes a second purchase or series of purchases of furniture on the installment plan before the first purchase is entirely paid for, the subsequent payments are apportioned pro rata between

the old balance on the first purchase and the new purchase. Consequently, unless the entire account is paid, the old balance is never regarded as having been paid in full. Two or three years later, after a customer has made several subsequent purchases, long after he may imagine he has completed the payments for the original purchase, he may be surprised to find, in case of a default in payment, that the store still claims title not only to the recent purchases but to all of them, including the first one. Some stores, however, credit an old balance in full when it has fallen to \$10 and the payment received is sufficient to cover it.

Installment collections and installment accounting are expensive. Also, there are considerable losses due to defaults in which the realizable value of the seized furniture is not sufficient to cover the unpaid balance of accounts. One concern conducts its business on the insurance principle or the "law of averages." Credit references are taken from the customer but are not looked up. The furniture is delivered and subsequent payments are credited, if made, but if the purchaser defaults the firm is little concerned. The average experience shows the amount of loss to be expected from defaults, and the prices are made high enough so that in spite of such defaults the remainder actually collected is sufficient to insure a good profit.

The financial analysis that has been made seems to indicate that the greatest returns to the furniture retailer were made by selling at relatively high prices on the installment plan. It must be remembered, however, that the primarily installment houses are not only in the business of retailing furniture, but also of financing their furniture customers for a period of many months. Installment contracts run all the way from 10 months to two years. That, and not their higher prices, is the reason the turnover of the primarily installment group is found to be so much less rapid than that of the less-than-half installment group. The longer the credit period, the greater is the amount of investment required to sustain a given volume of business. So long, however, as a large proportion of the buying public cannot well defer their purchases of furniture until they can pay cash, the installment houses perform a function that the non-installment houses do not perform. Installment prices probably averaged about 16% higher than cash prices.

### *Trade Associations*

Manufacturers, wholesalers, and retailers of furniture each have their



own trade organizations. Of the three, manufacturers are the more extensively and closely organized. Their organizations, too, generally are the oldest, some form of organization having existed in certain lines for many years. Plans for extensive and closely knit organizations of wholesalers generally are of recent development and are based usually upon the idea of consolidating previously existing organizations of less extensive scope.

Several broad lines of interest, based upon the particular type or types of wooden furniture made, are present among manufacturers. Early attempts to form associations embracing the entire industry were less successful than the more recent attempts to organize along lines of interest established by the similarity of line or lines of furniture manufactured. Following out this plan of organization, a number of associations representing the interests of household furniture manufacturers have sprung up in recent years, the principal of which are the National Alliance of Case Goods Associations, the National Association of Chair Manufacturers, the National Association of Table Manufacturers, the National Association of Upholstered Furniture Manufacturers, and the Cedar Chest Manufacturers of America. Of associations less definitely representing particular lines of manufacture and organized more on the basis of including all household furniture manufacturers in a given territory, there are the Southern Furniture Manufacturers Association, a strong organization including all household furniture firms located in the South, which departmentalizes its activities somewhat according to the lines made by its members; the New England Furniture Manufacturers Association, the Furniture Manufacturers and Jobbers Association of the Pacific Coast, and a considerable number of local associations representing particular cities or small producing areas.

### *Retail Associations*

The activities carried on by the various retail furniture dealers' organizations vary widely. Some are purely social, but in general, the strongest, most active, and the best supported turn their attention to the protection and furtherance of the financial interests of their members. These activities include opposition to direct sales by manufacturers and jobbers to consumers, and efforts to induce manufacturers to close their showrooms to the purchasing public, to issue their catalogues and price lists only to "legitimate" dealers who stock and show their furniture for retail sale, and to refuse to sell goods to dealers who do not carry retail stocks, or to wholesalers and jobbers who sell direct to



consumers. Along with these activities, which are intended to retain the retail trade for the retail dealer, newspapers are urged to refuse furniture advertising of other than "legitimate" dealers or of advertising indicating distribution direct from factory to consumer.

In connection with the opposition raised to direct sales, manufacturers throughout the country have generally been induced to close their wholesale showrooms to the consuming public both at factories and at exhibitions and to refuse to sell direct, except in some cases to hotels and public institutions. This has undoubtedly been due in part to fear of the manufacturers that if they did not do so they would lose the trade of organized retailers.

### *Truth in Furniture*

Prior to 1921, the terms in general use in describing furniture advertised for sale often failed to truthfully describe the woods used. For instance, furniture made of gum, birch, or poplar woods stained to imitate mahogany was often advertised and sold as mahogany furniture. The same practice applied to walnut furniture. During the summer of 1921 a movement for the adoption of terms more accurately describing furniture was started, which included leading trade organizations of advertisers, manufacturers, and retailers.

At its meeting of September 28-29, 1921, the National Council of Furniture Associations adopted the following terms applicable in reference to standard cabinet woods and to veneers, combinations, and imitations of them: Mahogany, for example: (1) Solid mahogany, (2) Genuine mahogany, (3) Combination mahogany, and (4) Mahogany finish. Objections were raised, especially by the Associated Advertising Clubs of the World, to the use of the above terms as defined by the manufacturers, and the national council reconsidered the matter at its meeting of March 1-2, 1922, and readopted the same terms with the exception that the word "genuine" was dropped.

Under the revised terms a designation as "solid mahogany" or "solid walnut" means that the exposed parts on the top, front, and ends of a piece of furniture are made of solid wood of the kind designated, while the case backs, case bottoms, mirror backs, and all interior parts may be made of any other wood. A designation such as "mahogany" or "walnut" means that the exposed surfaces of tops, drawer fronts, doors, ends, and frames may all have only a thin veneer of the wood designated, or may be made in part of solid and in part of veneer of the wood named. The construction of such furniture would be more

accurately described to the average purchaser by the term "mahogany veneer" or "walnut veneer." When the word "combination" is used with mahogany or walnut it means that the tops, drawer fronts, doors, and ends are made wholly or in part of veneer or solid of the wood designated, and the remainder "constructed of such woods as the manufacturer may consider most suitable for the purpose." The characteristic feature of this designation is the wide variety of combinations possible under it, both as to kinds of woods used and as to the proportion of each used in the piece. The revised terms permit the designation "mahogany finish" or "walnut finish" in describing a piece of furniture although it contains no mahogany or walnut but is made of an entirely different wood, such as birch or gum, and is merely stained to imitate mahogany or walnut in color or finish. Such furniture would be more correctly described by the term "imitation mahogany" or "imitation walnut," or by the name of the wood actually used—"birch" or "gum."

Although the terms adopted by the National Council approach more nearly "truth in furniture" than those previously used and may be understood when used between manufacturer and dealers who are familiar with their meaning as applied to furniture construction, they are not to be assumed conclusive of the problem, for they do not appear by themselves to convey their full technical meaning, and may be used by the dealer in a way to deceive the public.

About half of the highest grade of furniture is manufactured, or "built," as the term usually is, to special order and upon exclusive design. Each piece is not only unique in design, but frequently is designed especially for the particular place which it is to occupy in the room. The interior decorator is becoming more and more a factor in the furnishing of fine houses, and for this reason a number of the furniture shops manufacture largely to order for decorators, while a few of the manufacturing plants are operated by decorators themselves.

## XLII

### HARDWARE

#### *The Distributive Organization*<sup>1</sup>

THE distributive organization is very simple in the hardware business. The usual route of the commodity is manufacturer, jobber, retailer, and consumer.

The jobbers may be classified in two divisions. First, there is the large national distributor. He does a national business. As contrasted with him, there is the local jobber. He covers only a small territory, usually that adjacent to some strategic distributing point. The significance of this is that the large national distributor is finding competition keen because this local distributor can give quicker service, which is coming to be a considerable element since there is the tendency to reduce stock. There is also the element of freight. As freight rates are getting to be classified more scientifically, the large jobber does not have such favorable long-haul rates and the small jobber is commencing to make himself felt as a competitor of the large jobber.

The result of this competition has raised an important question in the hardware business. To give quicker service and to reduce freight rates, some of the large jobbers are establishing branch houses. Notable among these are the Simmons Hardware Company and the Marshall-Wells Hardware Company. There are also several in the Pacific Northwest who have established branches. We might find an explanation for those in the Northwest in the fact that the transportation is poorer and freight rates higher. But the fact that the branch system has taken root in the central states seems to point to the fact that this is going to be the coming organization.

In order to understand some of the significant factors in the hardware business, it is necessary to have an understanding of the development of the present organization. The pioneer jobbing house carried but a small stock and only a few lines of goods. The country merchant came in twice a year to make his purchase. He was met at the hotel by the drummer whose duty it was to direct him to his special firm. The sales-

<sup>1</sup> From H. T. Uehling and E. T. Soukoup, "The Marketing of Hardware," School of Commerce and Administration, University of Chicago, 1917.

men at the house sold him his supply of goods. They also provided entertainment for him.

The next step taken by the jobber was to reach out and get orders from the merchant. As a result of this policy, some of the jobbers commenced to put out a small price sheet. This was merely a price quotation from which the country merchant could order if his supply ran out. Thus, about 1865, we have the meager beginning of the salesman. The first catalogue appeared about 1880. It was put out by two St. Louis houses. The salesman was given one of these catalogues, and price changes were sent him from time to time. But the salesman often forgot to change the price, and the result was that at the end of the year the salesmen came in with different prices. To overcome this a loose-leaf catalogue was put out. The salesman then simply took out the old leaves and put in the new ones. But as the business grew, the loose-leaf catalogue got so large that it was found necessary to abandon it and put out a smaller one on thin paper. The salesman was then provided with special price sheets.

### *Analysis of the Commodity*

Because of the great number of articles dealt with in the hardware business, we may classify the products under two heads, convenience goods and shopping goods. The convenience goods include such articles as bolts, nails, putty, rope, cheap hammers and saws, cooking utensils, and pocketknives. The shopping goods, on the other hand, include such articles as stoves, washing machines, high-grade tools and sets, refrigerators, bicycles, hay carriers, fencing, and gates. Hardware goods appeal almost entirely to the sense of utility and as such are affected by invention rather than by style. This is also an important factor in determining the location of a retail store.

Hardware may be characterized by the terms "heavy hardware" and "shelf hardware." Heavy hardware includes such articles as bolts, nails, ropes, stoves, washing machines, fencing, and hay carriers. Tools, saws, cooking utensils, cutlery, and sporting goods may be generally classed as shelf hardware.

Most hardware may be said to represent articles of small bulk as compared with intrinsic value. Thus it may be ordinarily shipped long distances without greatly enhancing the price. The keeping qualities are also good. Since the goods are made mostly of steel, iron, or hardwood, and well finished or painted, they are little affected by temperature, dust, shop wear, time, or light.



Most articles used in the hardware business fall in the category called necessities rather than luxuries, style playing but a small part. The appeal must as a consequence be made to utility and not to style. The demand for a large number of the articles is continuous rather than seasonal. However some, stoves, for instance, have a seasonal demand, but this is probably reacted by the seasonal demand for some other product. The market itself is well developed. The hardware business has been carried on vigorously by a few large firms located in the central distributing centers. They have developed a high-grade selling organization and are being imitated by smaller concerns. The result is that a good demand has been created, but we could hardly say that the market has been overdeveloped.

The retailer must first of all carry a supply of goods which suits his customers both as to demand and style. A Chicago retailer, in contrast with a country-town retailer, would probably not carry a large supply of wire fencing; he would also find sporting goods carried by the highly specialized stores. In a district of furnace-heated flats, he would probably carry but a small supply of stoves, and they would no doubt be gas rather than coal stoves. Because of the great degree of specialization in a large city, the hardware man's business in Chicago narrows down more and more to that of strictly hardware lines. His stock can also be comparatively light and yet be complete, because he can obtain almost any article he wishes from his wholesaler on a few moments' notice. It is well worth while to contrast the scope of business of the highly specialized city retail hardware dealer with his peculiar trade, with that of the country-town hardware dealer, who must perform a great variety of functions and satisfy a great variety of wants.

In contrast to the city retail hardware man with his more or less specialized functions and limited territory, we have the wholesale jobber, who taps a territory as wide as the nation and who supplies a multitudinous variety of wants, as can be appreciated by looking through the catalogue of a firm like Hibbard, Spencer, Bartlett and Company, or the Simmons Hardware Company. His stock plan must be a most comprehensive one. He must supply people of all classes and nationalities and buying habits. His buying problem is a much more complicated one than that of the city retailer, for he has to order goods from a great many sources and from varying distances. His problem is really a difficult one, for he is not a specialist but a general merchandiser. As such, it takes a vast amount of capital to run his business. He not only has to have a large variety of goods on hand, but he also has to

have a large supply to meet the demands of the dealers promptly. Some of the large houses also contract for the entire output of a factory, and this of necessity takes a large supply of capital. The local retailer, on the other hand, needs but little capital.

Being made mostly of iron or steel, hardware may be carefully tested by using the standardized tests of the steel industry. As an illustration, the Maydole hammer may be cited. Through the careful testing and standardizing, by the ordinary steel tests, of the raw material, the quality of the Maydole hammer may be absolutely guaranteed and the fact that the very name Maydole has come to be universally accepted as a symbol of quality shows to what extent it is possible to make and apply scientific analysis to hardware products. The analysis and scientific tests of hardware products may be said to lie with the manufacturers of steel rather than with the manufacturers of hardware itself.

Hardware, because of its great intrinsic value as compared with its bulk and because of its good keeping and shipping qualities, may be shipped long distances without much prejudice to price. As a result we find a Chicago firm competing with a St. Louis firm in a Nebraska market or in a Michigan market. Distance is not a very large item in favor of the local jobber. However, these freight differences have been equalized by the placing of branch warehouses at the end of long hauls and at points strategically located as to shipping. This is a matter almost as much of service as of freight rates.

### *Consuming Center*

The big hardware consuming center of the United States seems to be in the Middle West and West. The South is not a good hardware consuming center at present because it has a tendency to cling to old things longer and because it has too many poor people and negroes to have a good buying power. The Central West, however, is the place where the most hardware is sold and it is here that we find the most hardware distributing houses.

### *Effect of Selling Season*

On the great bulk of the articles of hardware the seasonal demand is practically negligible. Still, of the large number of articles handled, certain ones can be picked out as illustrating the play of the seasons. Wire screen has a seasonal demand. The bulk of the screen for 1917 was sold before the beginning of the year. The consumer, however, buys this in the spring or early summer. The winter sale is very small. Stoves also have a seasonal demand, most of them being sold to the

consumer in the fall of the year and to the dealer in the preceding winter. Sporting goods have a seasonal demand, there being various goods for each season of the year. On the other hand, nails, hammers, wire, cutlery, and such articles have an all-year sale. While there are seasonal demands for some hardware goods, these seasons are spread over the whole year because of the variety of products handled. Though the seasonal demand is a factor, it is one which the different seasons counterbalance and offset.

### *Competition*

There are in reality only seven large wholesale hardware dealers in the United States (1917). They may be ranked as follows:

Name	Location	Capital	Organized
1. Simmons Hardware Company.....	St. Louis	\$4,500,000	1874
2. Hibbard, Spencer, Bartlett & Company..	Chicago	Not given	1855
3. Shapleigh Hardware Company.....	St. Louis	2,500,000	1843
4. Belknap Hardware & Manufacturing Company .....	Louisville	2,540,000	1840
5. Marshall Wells Hardware Company.....	Duluth	10,000,000	1888
6. Jannay, Semple, Hill & Company.....	Minneapolis	1,000,000	1857
7. Farwell, Ozmun, Kirk & Company.....	St. Paul	1,850,000	1859

To this list may be added two others who are important dealers but who do not compete materially in the big hardware consuming district, they being largely importers and exporters. They are:

8. Weibush & Hilger, Ltd.....	New York City.....	1864
9. Pacific Hardware & Steel Company.....	San Francisco	5,000,000 1901

There are approximately 650 recognized hardware jobbers. A recognized hardware jobber is one located in a hardware center, whose business is selling hardware at wholesale, whose sales to merchants exclusive of machinery and implements and mill supplies are not less than 75 % of gross sales, who have an invested capital of not less than \$75,000 doing a business of not less than \$250,000 per annum, and maintaining regularly at least three salesmen on the road.

The Simmons Hardware Company has adopted the branch house system. They have branches at New York City, Sioux City, Philadelphia, Minneapolis, Wichita, and Toledo. The remarkable success of the Simmons Hardware Company and its ability to give service and meet competition would seem to demonstrate the fact that, after all, transportation, either because of quick service or freight rates, is coming to be recognized as an element of competition. Probably before long the branch system will be adopted by other nationally distributing wholesalers.



Hibbard, Spencer, Bartlett and Company sells through its salesmen and through its catalogue. A sales manager, who has eight territorial managers under him, is responsible to the secretary of the firm. Each of the territorial managers has a certain territory under his supervision. He has charge of all salesmen and mail orders in this district. The firm puts out a large catalogue of about 2,800 pages, with cuts of the articles. All their dealers are given copies, and each salesman carries one along with him. A traveling salesman calls on his customers at regular intervals to solicit orders. In between his calls the merchant replenishes his stock through mail orders direct to the house.

#### *Other Distributing Agents*

Although the type of distributor represented by Hibbard, Spencer, Bartlett and Company handles most of the hardware business, there are several other types that are by no means insignificant. The mail order houses selling direct to the consumer handle a business that is very large if taken singly, yet when compared to that of the strictly jobbing houses, insignificant. Many of them own their own factories or contract with manufacturers for the making of their own brands. They also buy from importers and other large jobbers. Where the mail order house owns its own factories and sells direct to the consumer, we have hardware going direct from the manufacturer to the consumer, or from producer to retailer to consumer when the factory is not owned by the house. A few hardware specialty producers sell direct to the dealers, acting as their own jobbers. Several of the large stove manufacturers have their own selling organizations for selling the dealer direct, thus assuming to themselves the jobber's function. The amount of this business is relatively small.

#### THE WINCHESTER-SIMMONS CONSOLIDATION<sup>2</sup>

When the Armistice was signed in 1918, the Winchester Repeating Arms Company was greatly expanded as a result of war orders. If equipment were not to be scrapped, it was necessary for the company to find a market for such goods as the equipment could be utilized in producing. The items selected for manufacture were for personal use and included pocket cutlery, kitchen cutlery, butcher knives, carving sets, roller skates, ice skates, fishing tackle, fishing rods and reels, artificial bait, scissors, razors, files, flashlights, flashlight batteries, axes,

<sup>2</sup> From M. T. Copeland, *Problems in Marketing* (third revised edition, Chicago, A. W. Shaw Company, 1927), case of the Winchester Company, pp. 103-107.



hammers, hatchets, chisels, screw drivers, wrenches, pliers, auger bits, planes, saws, and shears.

For over 50 years the company had sold its products to wholesalers. It decided in 1919 to continue to market its guns and ammunition through the channels that it had utilized in the past, but to market its new products through a chain of retail stores that it would establish and directly to selected retailers to whom it would grant exclusive agencies.

On April 16, 1919, the Winchester Company was incorporated as a holding company owning about 97 % of the stock of the Winchester Repeating Arms Company. Mr. L. K. Liggett was one of the directors, and the plan of retail distribution was similar to that of the United Drug Company, of which Mr. Liggett was president.

The Winchester Company undertook to carry on national as well as local advertising of its brand.

With the steady increase in the number of agencies, the Winchester Company found that its distribution facilities were inadequate to give prompt service to all its retailers. The need for additional wholesale branches apparently was one of the reasons for the combination of the Winchester Company with the Simmons Hardware Company, which was announced in June, 1922.

Through its warehouses and sales force, the Simmons Hardware Company had obtained the patronage of thousands of hardware retailers. It controlled the "Keen Kutter" brand of tools and cutlery, which was at least as well known and even more widely handled than the Winchester brand.

The manufacturing facilities of both companies were consolidated under the Winchester Repeating Arms Company, and their distribution facilities were consolidated under the Associated Simmons Hardware Companies.

The Winchester Company opened several retail stores as planned. By the end of 1921 it was operating 11 such stores. By December, 1926, the company was operating only 1 retail store; that store was located in Boston. At that time the company had 6,300 exclusive agents.

### RETAILERS' COOPERATIVE BUYING ASSOCIATIONS<sup>3</sup>

The Century Hardware Company was formed in 1910 as a wholesale cooperative institution with a membership of 26 hardware retailers in

<sup>3</sup> From M. T. Copeland, *op. cit.*, case of Century Hardware Company, p. 159.

and about the city where it was located. Competition with independent wholesale firms for the orders of the retail members brought up continual problems in respect of price policies and sales methods.

Under the terms of its organization, each member was to pay a service charge of \$600 annually. An additional expense fee of 1% of the cost price was charged on each order placed by the Century Hardware Company with a manufacturer for shipment directly to a member retailer, and a charge of 5% of the manufacturer's cost price was added for each order filled by the Century Hardware Company from its warehouses. No salesmen were employed by the company; hence the responsibility lay upon the individual members to order merchandise from the company.

## XLIII

### DRUGS

#### INTRODUCTION

A FEW years ago the drug trade was largely a "regular" trade based on the large number of small manufacturers selling their drugs to wholesalers and jobbers, who redistributed the products to scattered retail stores. The jobber occupied a dominating position in the trade. As a step in the evolution in this trade came a great number of proprietary "patent" medicines. Such remedies were quite generally handled through the regular jobbing channels, except in certain cases where the large sale permitted the manufacturer to sell direct to the retailer.

The selling of standard drugs and standard preparations packaged in sizes suitable for the consuming trade and under a brand serving as a guaranty of quality has been one of the interesting developments in the market. Squibb and Company entered the field of selling standard drugs with the Squibb name and package as a guaranty of purity. This plan has succeeded remarkably well, and the trade has increased not only for Squibb products but also for other companies who have adopted similar tactics in replacing highly standardized known products on the market with a product of guaranteed purity. This has led to national advertising carrying the name of the house not only to the retailer but even to the consuming trade.

A similar development in preparations rather than in standard drugs is found in the United Drug Company, which, as a large jobbing concern associated with the retailers it serves, has placed its proprietary brand on standard preparations that were formerly the special field of the local druggist. The United Drug Company and its outlet, the Rexall Stores, have become an important national chain of practically independent retail dealers organized about a jobbing house.

The chain of drug stores, covering one or a few cities, has become typical of the trade. Such chain stores usually operate on a cut price basis and have given the independent retailers very troublesome competition.

Certain manufacturers are now known in the industry for their reputation for bringing out price cutting lines. To some extent they serve the chain store systems; in other cases they furnish cheap products with which the unit dealer may compete with the price cutting of the chains.

Department stores are becoming an increasingly important factor in the drug trade, particularly in toilet preparations. The practice of department stores in using toilet preparations and other drug store items as leaders to attract trade has hurt the business of all other types of retail drug outlets.

As the trade in standardized branded products has decreased the importance of the local druggist as a pharmacist, and correspondingly decreased his profits, and as the popular campaigns of doctors and others against patent medicines have reduced his source of income, the druggist has gradually added a long line of unrelated items, so that today one of the least noticeable features of the typical drug store is the drug and pharmaceutical trade. These items sold from the drug store are typically characterized by a low unit price and wide popular appeal and frequency of purchase and by a simplicity that does not require the ability of a specialist to sell.

The pharmaceutical trade differs to some extent from the drug trade in that the items must be typically fresh for satisfactory use. They are organic materials in a more or less active state, which causes them to be of rather perishable nature. In spite of all attempts of manufacturers to reduce the perishability of such items by preparing them in powdered form, they must yet be classed as perishable because they cannot be carried long in stock by either the retailer or the jobber. Pharmaceuticals are typically sold directly to the retailer or to the dispensing physician. Since the unit of sale is small and the number of items carried is typically large, the retailers secure a considerable amount of their pharmaceuticals by mail order.

### DISTRIBUTION THROUGH THE DRUG TRADE<sup>1</sup>

#### *Volume of Trade in Retail Stores*

An estimate of the total volume of the retail trade of the United States was recently made by Dr. Paul H. Nystrom. By various

<sup>1</sup> From C. H. Waterbury, *Distribution Through the Drug Trade—How to Get It; Also Decisions Governing Distribution*. Compiled for Committee on Proprietary Goods of the National Wholesale Druggists' Association, New York City.



methods the total volume in 1923 was determined to be approximately \$35,000,000,000, including that done by department stores, chain stores, mail order houses, company and commissary stores, employees, cooperative stores, direct from producer to consumer by wagon and motor truck distribution, and by independent neighborhood retail stores.

### *Independent Retailer Is Backbone of Distribution<sup>2</sup>*

It was estimated that \$23,000,000,000, or about two-thirds of all the retail trade, is done by the independently owned and operated retail stores. This type of store is therefore the most important factor in the distributive system today. Estimates made in various ways indicate that the total volume of sales in retail drug stores of all kinds is, roughly \$1,250,000,000 annually. This means that the average volume of business done by each retail drug store is between \$24,000 and \$25,000 annually.

It is estimated that the total volume of business done by all the chain drug stores combined is \$206,178,126, of which approximately \$75,000,000, roundly, is the representative volume of 326 chains, operating 1,751 stores, an average of \$69,000 per store.

It thus appears that the balance of the business done by retail stores is divided among 50,290 independently owned and operated drug stores, doing a total annual volume of \$1,044,000,000 of business, an average of \$21,400 per unit drug store, as against an average of \$24,000 done by all types of drug stores, including the chains.

It should be noted that the drug stores affiliated with chains are located in only 225 important cities of the United States and 157 outlying towns. Approximately 17,000 of the chain stores are within the confines of 225 cities. The population of the cities in which the chain stores are located is about 33,500,000. In these same cities, however, there are more than 20,000 independent retail drug stores serving neighborhoods and congested areas, indicating that the chain store is but a limited outlet at retail.

### *Whoever Distributes Pays*

In the drug trade we have observed a rather rigid adherence to what have become known as the legitimate channels of distribution; that is, from manufacturer to wholesaler, wholesaler to retailer, retailer to consumer. True it is that some business is done direct between manu-

<sup>2</sup> It should be noted that this opinion is advanced by a representative of the wholesale drug trade.—EDITOR.

facturer and physician and hospital and some direct between manufacturer and retail dealer. In each case, however, the functions of wholesaling must be performed. The storing of excess supplies, the extension of credit, the assembling and sorting of the goods, and their delivery, must be accomplished. Either the manufacturer himself must do these and bear all the expense incident thereto or the retail dealer or the consumer must perform them.

### *Widespread Distribution of Independent Retail Drug Stores*

The backbone of drug trade distribution seems to lie in the approximately 50,000 independent retail drug outlets scattered through the length and breadth of the land, who are dependent, because of their location and because of the character of drug store merchandise and the demand therefor, upon the wholesale druggist located in some of the leading cities.

### *Wholesale Druggists*

By taking the directories of mercantile agencies and mailing lists it is found that something like 982 names bear the designation "wholesale druggist." Without respect to names, 341 wholesale druggists so-called may be deducted either because of the classification "wholesale and retail," or because of purchasing for two or three individually owned stores. Forty-two additional names may be deducted because they are also included in the list of chain stores. With deductions totaling 363, the number of wholesale outlets thus determined is 599. Of this number, 292 were determined to be complete service wholesale druggists; that is, those concerns which operate on their own capital, carry complete stocks of merchandise such as the retail trade requires, and employ salesmen to solicit accounts. The remainder are grouped as local buying clubs, dealers in specialties, cooperative wholesale houses, small chains, manufacturers carrying a few side lines, and the like, but on the whole, dealing in a limited number of rapid-selling staples and a few specialties or buying only for stores holding stock in the enterprises. Such houses operate on a cash basis, employ no salesmen, and do not cater to the full needs of the retail druggist or give general distribution to the products they handle.

### *The Service Wholesale Druggist*

The 292 service wholesale druggists are found to have 312 distributing points; and 301 of these distributing points, or 96.4%, are located in 178 principal cities, while 11 locations, or 3.6%, are in 10 outlying

towns. This fact shows the decided advantage from the standpoint of a manufacturer of securing national distribution at low unit cost by dealing exclusively with the service wholesale druggist.

#### *Volume and Character of Wholesale Drug Sales*

It is estimated that the total volume of wholesale drug sales is \$417,000,000, of which 55% (\$230,000,000) is in proprietary goods, meaning those articles which certain individuals have the exclusive right to manufacture and sell; 14% (\$58,500,000) in fixed-price goods not proprietary; and 31% (\$130,000,000) in sundries and specialties on which the wholesaler establishes his own margin of profit.

A survey made by the Harvard Bureau of Business Research indicates that most retail druggists buy from two or three wholesalers and that about 60% to 65% of their requirements are purchased from wholesalers, the other 40% being scattered through many sources, such as creameries, confectioners, and so forth, depending upon the character of business in each instance.

#### *Variety of Stock Handled by Drug Trade*

In the wholesale drug stock there is a range of from 45,000 to 60,000 separate items, and the retail druggists, on the average, carry stocks ranging from 8,000 to 13,000 separate items. It is obvious that with a business of such detail no retail druggist can afford to carry a very large quantity of any one commodity but must have access to fresh supplies quickly and in the course of the year will dispose of items totaling 40,000 or 50,000. The natural result of this is a tendency to buy a variety of articles in very small quantities. From a manufacturers' standpoint, it appears that a national market can be most economically reached by dealing with 292 service wholesale druggists serving efficiently 50,000 retail druggists reaching an average of 435 families each and a total of 21,000,000 families.

#### *Distribution at Wholesale*

Investigation over a long period of years indicates that more and more of the merchandise handled by the drug trade is of proprietary character. Proprietary articles are those which the manufacturer has the exclusive right to manufacture or sell. In many cases the prices are fixed by the manufacturer, a fact which renders them extremely susceptible to abuse in trading by those who would make them leaders to induce other trade by means of deviations from the price named or suggested by the maker or proprietor. Now the demand for these



proprietary articles is specifically created by the proprietor or manufacturer, and it is the function of the retailer and wholesaler to supply them on demand, it being assumed that it is profitable to do so. This demand is created as the result of good will built by the proprietor for meritorious products by advertising to the consumer in one form or another.

#### *Need for Adequate Distribution*

Now, what the manufacturer wants is adequate national distribution. This he can secure only by dealing directly with those wholesale outlets competent to carry the stock and extend the credit and sales service necessary to place the proprietor's wares within easy access of the independent retail druggist. Due to limited capital and necessarily restricted buying power, as well as to the great variety of items called for in his establishment, the retail druggist is obliged to buy in limited quantities only such goods as are in demand in his community or neighborhood. He learns about these goods through the salesmen's contacts, those weekly or regular calls from the representatives of the wholesalers in the not distant markets. More places or persons from whom the retailer may buy do not increase purchases; they merely tend to further restrict quantities bought and to split orders among more sources of supply than are really required.

#### *Distributing Methods of Proprietary Manufacturers*

The manufacturer may reach the consuming market in any one or more of the following ways:

1. Direct to consumer by mail
2. Direct to consumer by wagon or motor truck
3. Direct to independent retailer
4. Direct to retailer through buying clubs, which carry no stock
5. Direct to retail chain stores
6. Retailer through service wholesale druggist
7. Retailer through brokers, peddlers, and so forth
8. Retailer through wholesalers other than wholesale druggists
9. Retailer through cooperative wholesaler
10. Mail order houses
11. Publishing companies in payment for advertising
12. House-to-house canvassers

No one of these methods of distribution can give complete and adequate distribution to nationally advertised drug trade articles of a proprietary character except the service wholesale druggist.



*Reasons for Various Distributing Methods*

Without going into a detailed discussion as to the relative merits of the various methods and plans, it appears that some of the reasons why manufacturers and proprietors have adopted these various plans of distribution are as follows:

1. Competition of other manufacturers.
2. Manufacturer dislikes to refuse an order.
3. Manufacturer believes retailer's friendship helps sell goods and that this can be secured by sales direct or at a special discount.
4. Manufacturer believes that when a retailer buys a large quantity, at a low price, retailer will sell more.
5. Manufacturer thinks duplication of wholesale distributors creates sales.
6. Manufacturer does not consider effect of cut price distribution on his distributors.
7. Manufacturer does not consider the wholesale druggist an essential distributor.
8. Manufacturer has never considered the need for a policy of distribution.

Most of these reasons, it is believed, are rooted in a confusion of thought in the failure to distinguish between sales and distribution. When one person succeeds in persuading another to buy an article, he has made a sale; but when he merely delivers an article that the other man has already decided to buy, he is simply acting as a distributor.

*Distinction Between Distribution and Sales*

The retail druggist distributes but does not sell advertised proprietaries. This is also generally true of the proprietor's wholesale distributors. Their salesmen, however, if they believe that the proprietor's method of distribution is right, do give the retailer information about the goods, tell him of special offers, tell him of manufacturers' advertising campaigns, and urge him to buy on an extension of credit and prepare to meet the demand. This is a sales service of real value to the manufacturer. But aside from this, the wholesaler also distributes but does not sell advertised proprietaries. What is it, then, that does sell them? It is quite plain that, aside from such repeat orders as proceed from the merit of the goods, it is advertising that sells them, and advertising alone. The distributor merely delivers them to the customer who is already "sold."

PHARMACEUTICALS<sup>3</sup>

The Blank Laboratories is a corporation engaged in the manufacture and distribution of high-grade pharmaceutical preparations and allied products. Throughout the United States, part of Canada, and very limitedly abroad, these are marketed ethically among the medical profession and drug trade. Sales branches are located in Chicago, New York, Toronto, San Francisco, and Seattle.

*Sales Policies*

Though the 1,500-odd commodities marketed by the Blank Laboratories do not naturally fall into distinct groups, the following classification is fairly indicative of the character of the stock in trade:

## 1. Physicians' Supplies

Tablets and pills (alkaloidal granules and staples)

Ampules

Biologics

Arsphenamines and other dermatological products

Ointments

Effervescing salts and allied products

## 2. Specialties

House formulas, sold mostly through drug trade

Miscellaneous specialties

## 3. Chemicals, vegetable drug extracts, alkaloids, used in manufacture or sold in bulk.

This multiplicity of products is explained by the limited capacity of the market for any one article and by the corollary of that fact, that the average customer buys only a small amount of each commodity. Consequently, to allow for expansion and to facilitate economical selling, a variety of products was adopted. Then evolved the policy of carrying supplementary articles as a service to customers, till a fairly complete stock of pharmaceutical products was developed. This situation is emphasized by statistics which show that 80% of the sales volume is obtained from 30 best sellers, the group upon which promotion effort is largely concentrated. At the same time, an attempt is made to curb the endless multiplication of commodities by eliminating the relatively unimportant items, the yearly sales of which fail to exceed \$50.

<sup>3</sup> From Theo O. Yntema, *The Administrative Control of the Blank Laboratories*, (unpublished thesis, University of Chicago).

*Shaping the Product to the Market*

Before this problem can be attacked, obviously an article of satisfactory medicinal value must first be produced. But with that step accomplished, shaping the product to the market presents relatively few complications, since the doctor, who is the principal ultimate user or consumer, is concerned less with market frills than with quality. There are, of course, the unavoidable steps in preparing the bulk product for sales; the unit dose must be scientifically ascertained—a technical question which is answered by the technical staff; the size of the unit lot offered for sale must be determined. One hundred, five hundred, and one thousand tablets are the standard sizes adopted; the packaging must be satisfactory. Bottles, encased in neat cartons, are used as containers for 90% of the products. Physical factors tending to simplify the shaping of commodities to the market are light weight, small bulk, and non-liquid characteristics. These qualities, especially the last, fit the product for shipment to distant points or to foreign markets.

*The Product as a Marketing Instrument*

The great selling point of Blank goods is quality—obviously the consideration outweighing all others in the case of medicinal supplies. Other selling arguments are house reputation, distinctiveness of formula, and excellence of service in filling orders. Blank's is known as a high-price firm, but they enjoy such a justifiable reputation for purity and reliability that their preparations find a ready market, even on first introduction. The research, chemical, pharmacologic, and clinical, conducted at the laboratories is so well recognized by the profession that doctors are willing to try new products on the company's recommendation.

In addition to producing an article readily salable on its merits, the company has utilized the product's auxiliary possibilities as a market instrument. From time to time the advertising department has engaged an artist to design an attractive trade dress for the cartons and to devise distinguishing trade-marks. A uniform color, blue, uniformity of shape and size of packages, the use of the general company trade-mark and other product trade-marks—these elements in their dress serve to distinguish and individualize Blank products, and to consolidate Blank good will.

The sales department is little concerned with this problem, for it falls to the lot of the production department to turn out what the

sales department can market. Since little fluctuation in sales volume is experienced, other than the seasonal variations which are well known, this arrangement seems satisfactory. When new products are added, the quantity to order is investigated by consultation and determined by the vice-president in charge of production.

### *Extent and Character of Market*

The ultimate users of the company's products are the physician, the dentist, and the veterinarian, except in the case of a few disinfectants and specialties which are sold to the public through the drug trade. In the United States there are 146,000 doctors, 13,000 veterinarians and 50,000 dentists, practically the extent of the market if the company maintains its policy of serving only the professions. Therein lies a serious problem—on the one hand, tapping the lay public with its greater buying power would offer a lucrative method of sales expansion, but, on the other hand, it might involve alienation of the professions and the loss of "ethical reputation." It is not impossible, however, that the company may be able to enter both fields, keeping its physicians' supplies strictly for sale to the profession, and offering staples of various types to the laity under its own or another trade name.

In the domestic market the products of the Blank Laboratories directly or indirectly reach the majority of the doctors. The dental trade is not yet fully developed, but is progressing nicely, while the veterinary trade is gradually falling off. A prosperous export trade had been carried on through various agencies, but during the war it was severely curtailed and has not yet returned to a flourishing condition.

### *Channels of Distribution*

The main channels of distribution are:

1. Factory to profession and institutions
2. Factory to retailers to physicians (minor portion to laity)
3. Factory to wholesalers or jobbers to retailers to physicians, and so forth.

The distribution of sales among these channels is:

Doctors	27 %	Jobbers	35.5%
Hospitals	3 %	Drug and chemical	
Retailers	18.5%	manufacturers	7 %
		Miscellaneous	9 %

Originally, the founder of this firm confined his efforts to mail order selling direct to the medical profession. Then sales branches were



established in distant markets, and a little later salesmen were employed to call on the physicians in the territories adjacent to Chicago. As the business expanded, selling to drug retailers, jobbers, and wholesalers was introduced and gradually developed until the present system of distribution was rounded out. Although a large volume of business is still received from customers through the mail, the importance of this channel of distribution is gradually waning as salesmen are combining intensively all the domestic territories.

The company plans to have one retailer in every city who will feature or at least prefer Blank products. Toward this end it has attempted to popularize its slogan, "Blank's Goods on Unspecified Orders." But since jobbers' sales are increasing while retail sales have fallen off slightly, a serious problem confronts the company in devising means to secure better dealer cooperation and thus reversing this trend.

Selling by branch organizations is now an important part of distribution. Some of the territories in the United States and Canada are too remote to permit intimate contact of the business with the market but can successfully be served by sales branches. At each unit, nearly complete stocks are kept to facilitate service to customers.

Foreign territories are reached through agencies, such as the Alkaloidal Company, which handles Blank products on commission basis.

### *Competition in the Market*

The company experiences competition in the market from many pharmaceutical houses. It has not usually, however, attempted to compete on a price basis, but has resorted to quality and service to win the trade. A striking example of this occurred immediately after the purchase of the Dermatological Research Laboratories in 1922. Competitive manufacturers of salvarsan and neo-salvarsan cut the physician's price of a dose from two dollars to one dollar, but Blanks refused to compete on such a basis and maintained the previous price. Though they experienced a temporary decline in the market they soon regained their customary volume of business and increased the sales of these products by 20% the next year.

### *Sales Promotion*

Though sales promotion is integrally a part of the sales function, it is administered by an independent unit of the organization. The promotion activities of the sales department are confined for the most part to personal letters to customers in answer to specific inquiries and to the work of two or three detail men, who visit members of the

profession to inform them of Blank products and to win their good will.

*Organization of the Trade*<sup>4</sup>

Chain store organizations are credited with doing 18% of the total business. Among the leading chain store organizations are Liggett, New York City; Walgreen, Chicago; Owl, San Francisco; Central, Chicago; Standard, Cleveland; Mykrantz, Cleveland; and May, Pittsburgh.

Most chain stores buy direct from the manufacturers and, when the jobber's discount is allowed, are in a strong position with reference to competition. Reduced prices are consequently featured by chain stores at the expense of the retailer who buys from the jobber and hence has a narrower margin between cost and selling price.

According to the National Wholesale Druggists' Association, the drug jobber requires a discount of 15% plus 2% for cash to cover his operating expenses. Some discounts run as high as 20%.

Except for the larger chain stores, which usually buy direct, as do the larger independent retailers, particularly in the case of important items, the druggists buy through the jobbers, who carry not only a complete line of pharmaceuticals and sundries, but rubber goods, stationery, sporting goods, many carrying soda fountains and equipment. A new type of drug jobber, one who specializes in certain fast-moving specialties instead of carrying a complete line, is becoming fairly numerous in the drug trade.

The modern drug store is becoming a small department store dealing exclusively in articles of comparatively low cost and easy portability. It caters to conveniences.

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<sup>4</sup>From *Crain's Market Data Book*, 1925-1926.

## XLIV

### GLASSWARE<sup>1</sup>

#### DISTRIBUTION

MOST glass manufacturers prefer to sell their ware to jobbers, to consuming manufacturers in other industries who use glass products, and to large wholesale distributors.

A large amount of merchandise is sold to jobbers, who usually have an exclusive territory. In the case of bottles and jars, a large quantity is sold direct to the manufacturers or bottlers of wines, beers, ketchups, grape juice, and the like, to large drug concerns operating a chain of stores, and to small druggists. Only a small amount of glassware is sold to the retailer direct, the nature of the product limiting such sales to cut glass, tableware, some lighting goods, and a few specialties. Only a very limited quantity is sold to mail order houses, as these houses, owing to their method of distribution, can handle only a few products, such as cut glass, lamp shades, and tableware. Some goods for export trade are sold direct to the consumer, usually through a resident agent or a commission broker.

A number of window glass manufacturers (about 25 hand and 5 machine) sell their entire product through a sole selling agent or broker. This agent sends out his salesmen and on receiving orders distributes them among the various plants according to the quantities and grades produced, the nearness of a factory to the point where the glass is to be delivered, and so forth. At least one other branch of the glass industry is contemplating a somewhat similar selling arrangement. Because of the method of distributing its goods, there are comparatively few salesmen employed in the glass industry. The compensation of salesmen, when they are employed, is in the form of a commission or a salary and traveling expenses. Where the salesman works on a commission basis, it is customary for the manufacturer to allow a drawing account, that is, to allow the salesman to draw a regular amount every week for his current expenses, which is periodically deducted from the actual commission earned.

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<sup>1</sup> From *The Glass Industry—Report on the Production of Glass in the United States*, United States Department of Commerce, Miscellaneous Series No. 60, 1917.

The sale of a large quantity of goods to jobbers and wholesale distributors is due to necessity rather than to choice. The capital turnover in the glass industry is exceptionally small, which is due to the fact that most of the capital is invested in land, buildings, plant, and equipment. Labor, which has to be paid for at least every two weeks, constitutes the chief item of expense in every branch of the industry except where the processes of manufacture are entirely mechanical. Practically all the capital being tied up in plant and equipment, it is necessary for an establishment, in order to have the cash to meet its heavy pay roll and other current expenses, to sell to jobbers and wholesale distributors, who usually buy on very short terms and who, if necessary, will pay cash. Another important reason for wishing to sell to them is that they purchase in large quantities, which not only insures a large periodic cash income but also tends to make production and prices more stable and reduces the overhead expense.

### SELLING FACTORS

#### *Effect of Seasons*

The seasons, to some extent, have an effect on the glass industry. Bad weather that retards building operations affects window, plate, wire, and opalescent glass and, to a minor degree, lighting goods; a cool summer affects manufacturers of beer, soda, and mineral water bottles; a poor crop affects manufacturers of ketchup and grape juice bottles and jars.

#### *Long Future Deliveries*

The fact that goods are manufactured for long future delivery has little effect on the industry, because most of such goods is manufactured by contract. However, it often leads to overbuying, which results from a poor anticipation of future demand and judgment of the market. When this happens it usually curtails the manufacturer's production and lowers prices during the next blast.

#### *Size of Orders*

Though the great bulk of glass products is sold to the jobbers and other large purchasers and the orders are therefore necessarily large, there is a tendency in all branches, and especially in bottles, for the orders to become smaller and more frequent. This is in accord with the general tendency in many other industries, and results from the purchaser's desire to rid himself of the responsibility of judging the market and from putting too much cash into large stocks. The automatic bottle



machine manufacturers insist on large orders, as do many of the manufacturers in the other branches, who will not ship less than a carload. The comparatively small orders and the small rush orders go to the hand plants. In general, however, there is a tendency on the part of the jobber or other purchaser of glass products, even in standard goods, to shift whenever possible the burden of carrying the stock onto the manufacturer, and this necessarily results in smaller and more frequent orders.

### *Discounts*

The following statement gives the discounts usually allowed in the glass industry as reported by manufacturers.

Window glass.....	2%	10 days, or net 60 days
Plate glass.....	1%	10 days, or net 30 days
Bottles .....	1%	10 days, or net 30 days
Tableware .....	1%	10 days, or net 60 days
Lighting goods.....	1%	15 days, or net 30 days

Though these terms are generally uniform throughout the respective branches of the industry, the scale is not strictly adhered to by all manufacturers. It depends to a great extent upon the purchaser and the character, reputation, and business methods of the manufacturer. There are occasions when extra discounts are demanded and secured. A very large purchaser may be allowed an extra cash discount or its equivalent in the form of a freight allowance. It is not unusual for purchasers to deduct the usual discount although payment is not made until long after the bill is due.

### *Job Lots*

Job lots are made up of imperfect ware, bad sizes, broken stock, standard goods of which too much stock has been produced, special goods left over by cancellations, discarded styles and designs, and odds and ends. There are comparatively few job lots sold in this industry; the ware that cannot be sold is utilized to a great extent for cullet. Discounts allowed on what job lots are sold vary, depending upon the ware, its condition, how urgent the manufacturer's need for money is, and numerous other factors.

### *Advertising*

Though many glass establishments advertise in trade journals, only a very limited number advertise nationally. The great bulk of glass products by their very nature have no particular individuality whose

advertising would be warranted or profitable; the principal selling argument is generally the price. Only two or three manufacturers place trade-marks on the ware they manufacture, and these appear on pressed goods. It is impossible to blow a trade-mark on ware made in paste molds or blown offhand.

### *Trade Uncertainties*

There are some trade uncertainties connected with certain branches of the industry. Building trade strikes which cannot be anticipated affect window, plate, wire, and opalescent glass. Prohibition to some extent influences the bottle and bar good trades; in addition, bottles are affected by varying laws in regard to size and capacity and by the varying degrees of their enforcement by states and cities. The making of goods lettered with the purchaser's name or trade-mark is to some extent a hazard. Seasonal effects, which have been previously discussed, are trade uncertainties which cannot be forecasted or guarded against.

### EXPORT METHODS

The most popular method employed in selling glass products abroad is through American export commission houses located in New York City. This method is preferred for the reason that it results in a greater number of orders. Many solicit orders through correspondence and catalogues with very good success. A few sell goods through foreign resident agents or traveling agents and others through advertising. An official of a bottle factory stated that it had attempted to establish a foreign trade through an English agent in London but received no results. An attempt was then made through New York commission houses, with the result that foreign business amounting to \$125,000 was secured in six months.

American export agents usually purchase goods outright and rebill to the foreign customer at an advance of about 2%; they also sell on commission. In some cases the export agents living abroad buy the goods outright and pay for them; in other cases they sell on commission. Unless credit is extended or other arrangements made for payment, the collection of the account is usually taken care of by some New York export house or by means of letters of credit. When goods are sold on credit it is the usual custom to allow a small discount, about 1%, for cash in 30 days from date of shipment.

## XLV

### CANDY<sup>1</sup>

#### *Amount of the Trade*

(1) CLOSE to 2,000,000,000 pounds of candy are sold to the consumer for approximately \$1,000,000,000 annually, according to trade estimates. This large volume of candy is retailed in more than 200,000 establishments. Of these, 61,563 are exclusively candy stores. Candy is also sold in large volume in drug stores, general stores, groceries, five-and-ten-cent variety stores, department stores, and through mail order houses. About 19,950 of the exclusive candy retailers operate candy kitchens, making candy that must be sold quickly. Under this class come the candy chain stores. In addition to candy, most retail confectioners sell ice cream and soft drinks, and many operate luncheon departments.

#### *Candy Jobbers*

The exclusive candy jobbers number 3,000, while many other jobbers, such as drug and grocery jobbers, usually sell confectionery products also. Many of the candy jobbers operate wagon routes and supply retailers direct from their wagons, the drivers handling sales, deliveries, and collections. About 95% of the package goods sold at retail are bought through jobbers.

There are a great number of manufacturing confectioners who sell to dealers in their town or locality and also operate retail establishments themselves, and many more who make some part or all of the candies they merchandise.

Inasmuch as chocolates and soft candies are perishable, only small stocks are kept on hand by the retailers. This means that the exclusive candy retailer must have a very large rate of turnover. To keep the perishable stocks successfully, most of the more important retailers use refrigerating equipment.

(2) The possible market open to a manufacturer of average size is restricted by (1) the perishability of the product, and (2) trans-

<sup>1</sup> From (1) *Crain's Market Data Book*, 1925-1926; (2) Richard C. Hay, "Marketing of Confectionery," *Western Confectioner*, July, 1917.

portation difficulties and shipping expense. These market restrictions have resulted in most cases in the confining of selling efforts on the part of the manufacturer to a rather limited territory and to the more intense cultivation of this territory. For most small manufacturers a market of from 100 to 150 miles' radius is the limit. For eastern firms it is very hard to get distribution west of the Mississippi River; for western firms the selling radius is greater than for eastern firms, because of the more scattered population.

### *Seasonal Demand*

The demand for confectionery is quite seasonal in character in most cases, being as a rule much lighter in the summer months than in the winter. Of 70 manufacturers considered, 72% stated that the demand for their product was seasonal in character and only 28% had an even sale of goods throughout the year. The demand is largely natural and to a great extent undeveloped. It is natural for people to eat candy, and the eating of sweets of all kinds is not peculiar to any class or classes of people. There are, of course, differences in the grades and prices of candies purchased, but this does not alter the main fact—that confectionery is a universally consumed product.

### *Competition*

Competition in the confectionery industry is very keen. Dealers have over 50 high-class lines and several hundred smaller ones to choose from. Consumption of any one line can be increased by better marketing methods and by proper advertising, and owing to the keenness of the competition, manufacturers are being forced to give their marketing problems much more study now than ever before. The whole process of distribution is one where constant vigilance is needed. One result of the increased competition has been to make the retailer very independent of the manufacturer. It is difficult to get exclusive agents, and even difficult to get dealers to feature a line. Special discounts, overliberal "return" policy, and payment for window displays are some of the other results of this increased striving for business on the part of the manufacturers. The liberal attitude on returned goods encourages lax buying in order to secure quantity discounts, with a consequent slowing up of turnover, staleness of candy, and general dissatisfaction. It is important to note that the purchaser of stale candy does not "kick"—rather he or she simply buys some other brand of candy the next time.



*Standardization*

Candy must be standardized—people buy it on their own personal preferences and are their own judges of quality. A reputation for quality and superiority can be established which will assure a trial, but which will not necessarily assure a continuity of demand. It is the habit of drug stores and other stores to give candy good display, and this, together with the natural tendency to try something new, limits the ability of any manufacturer to control the market by aggressive selling and advertising.

*Channels of Distribution*

The distribution of confectionery must of necessity be quickly and efficiently done, and consequently rather a large number of channels for this distribution have grown. The ultimate consumer is, of course, the last and most important person to be considered in the distribution of candy, as with any other product, but the retailer is the most important link in the chain of distribution without a doubt. In the main, the following classes of dealers sell confectionery at retail:

1. Confectionery stores
2. Drug stores
3. Grocery stores
4. Department stores
5. 5-and-10-cent stores
6. Hotel, theater, cigar and news stands

The volume sold through each of these outlets varies greatly, some of the types of outlets being of comparatively little importance.

*Manufacturer Direct to Retail Trade*

In general, the lower the grade of candy, the more apt it is to be sold through a jobber—and, conversely, the higher the grade, the more apt it is to be sold direct to the retailer by the producer. When a manufacturer sells his product direct to the retail trade, he does it in one of two ways, and sometimes both, namely, (1) selling to a retail store which is owned or controlled by the manufacturer in question; and (2) selling to an independent retailer. Of the total product of 70 manufacturers 53.5% was sold direct to independent retailers. It can therefore be seen that the largest proportion of confectionery is sold by manufacturers direct to retailers.

When a manufacturer sells direct to an independent retailer, he may do so in one of three ways: (1) By establishing an exclusive agency, whereby the retailer agrees to handle but one line of confectionery;

(2) By getting the dealer to feature the line, although some other candies are sold in the same store; (3) The dealer may simply sell the product without giving any particular prominence to that line.

In considering the establishment of an exclusive agency, manufacturers are mainly governed by the locality. Exclusive retail accounts depend entirely upon the custom in different parts of the country. In some sections of the middle west and south, the exclusive idea still prevails, but where chain stores have been established the exclusive store has been forced to put in other lines in order to live. Out of 61 manufacturers who expressed their opinion on this subject of exclusive dealers, 41 were opposed to having exclusive dealers. Of those in favor of the exclusive agency relations, only 6 stated themselves as being in favor of this relation under all circumstances.

In general, it may be said that a dealer must feature one line of candy but may carry other lines to support the featured line. This is the present tendency in the trade and is the logical result of the increased competition among manufacturers and the improvement in material, quality, and service.

#### *Manufacturer through Jobber to Retail Trade*

There are five distinct jobbing outlets open to a manufacturer. He may market his product (1) to a confectionery jobber; (2) to a manufacturing jobber; (3) through a specialty confectioner jobber; (4) through a confectionery broker; and (5) through other miscellaneous jobbers, such as wholesale grocers, wholesale druggists, and the like. These need not be discussed except to say that of 70 manufacturers in all parts of the United States, of their total sales 4.5% was marketed through specialty jobbers and 40% through the remaining classes of jobbing outlets.

To summarize the distribution of these 70 manufacturers through the various channels, we find the following to be the case:

1. Direct to retail stores:
  - a) To independent stores..... 52.5%
  - b) To manufacturer's stores..... 3.0%    55.5%
2. Through the jobbing trade:
  - a) Through specialty jobbers..... 4.5%
  - b) All other jobbers..... 40.0%    44.5%

Manufacturers seem to be showing a tendency to sell more and more direct to retailers, although for obvious reasons the jobbers will always have their place in the distribution of confectionery.

*Advertising*

The main value of advertising in the marketing of confectionery lies in its use in influencing consumers to buy some particular brand of candy, rather than in trying to get them to eat more candy. It is almost impossible to advance the price to consumers with advancing raw materials. The price must be kept uniform, as the consumer, through advertising, generally has in his mind a distinct price per pound or per package, and that price has very little relation to the cost of materials.

Of over 60 manufacturers considered, 56%, or slightly over one-half, advertise regularly. Of the remainder, 26% advertise at irregular intervals and 18% do not advertise at all. The advertising mainly takes the form of window displays and trade journal and newspaper advertisement, and in a few cases manufacturers advertise in magazines of national circulation.

Advertising is possible only with branded goods—at least from the manufacturer's point of view. In the majority of cases the goods go through to the consumer under the manufacturer's own brand, but in many cases jobbers have their own private brands which they sell in competition with the manufacturer's brand. In answer to the question, "Do your goods go through to consumers under your own brands?" only 4 out of 66 manufacturers answered in the negative. Forty-four manufacturers made the statement that practically all their goods go through to the consumers bearing the manufacturer's name. These manufacturers consider that their part is not done until their goods have been delivered in perfect condition to the consumer, and, if the goods are right, the result will be greater and more intense consumers' demand for the branded goods, which will work to the benefit of all concerned.

## THE CANDY MAKING INDUSTRY IN PHILADELPHIA<sup>2</sup>

*Distribution*

In the confectionery business there are two very widely different means of distribution.

In the first, the various kinds of chocolates and other candies are handled in bulk, being packed in five-pound boxes, or sometimes in pails. These are handled just like wheat or any other commodity, and

<sup>2</sup> From Ellwood B. Chapman, *The Candy Making Industry in Philadelphia*, issued by the Educational Committee, Philadelphia Chamber of Commerce, 1917.

the identity of the manufacturer is lost before they reach the consumer. They are generally sold through jobbers to the smaller retail confectioners, who market them as their own goods, in connection with certain lines which they themselves may manufacture. This method of distribution applies principally to the cheaper grades of candy and also to those kinds which require a large plant and extensive equipment for their manufacture, such as chocolate coating, marshmallows, gum drops, and pastes. In most instances, even the smallest confectioners manufacture the simpler goods, such as stick candy, molasses taffies, and so forth, and a great many get up their own lines of chocolates by making the centers and purchasing the chocolate coating with which to cover them.

In the second method of distribution, the goods are packed by the manufacturer himself in small boxes of varying sizes suitable for retail consumption, and in many instances in small cartons, retailing at from 5 to 25 cents. These, too, are sold in some instances through jobbers, but in the case of higher-priced goods they are usually sent direct from the manufacturer to his retail agent. In this way it is possible to handle, even at a distance, many perishable goods which otherwise could be sold only at the place of manufacture. To the firm of Whitman's belongs the credit for having been the first to pack confectionery in attractive boxes for widespread distribution. These are now shipped to all parts of the country, from Maine to Alaska, as well as to our insular possessions.

### *Holiday Periods of Demand*<sup>3</sup>

The periods in which the most candy is sold are the holiday periods. Most holiday demands center around one day. The concentration of purchase on this one day means that factories are run for months to supply it.

Take, for example, the development of the Easter candy business. Easter candies are bought only for Easter. They have no sale for any other purposes and yet, in what is ordinarily a dull season for other candy, factories making Easter candies, from the beginning of the year through Easter, are kept busy supplying this one day's demand.

<sup>3</sup> From V. L. Price, "Cooperative Advertising by the Industry," *Northwestern Confectioner*, June, 1922.



## XLVI

### FLOWERS

#### *Cooperative Advertising*<sup>1</sup>

(1) FOR years there has been talk among florists of joint advertising to promote the interests of the industry. The National Floral Corporation, an organization to facilitate the quick delivery of flowers at points distant from the donor, had advertised modestly.

(2) While the history of the National Floral Corporation, of New York, to date reveals no startling record of results, it is nevertheless enjoying a lusty infancy that augurs well for its future career. During a season of less than three months of advertising in very small space it has more than earned back an initial advertising investment and has established a representation of 72 florists out of a hoped-for eventual roster of 500. By sending actual cash mail orders to a more or less reluctant trade, it has been able to swing into line florists at first skeptical of the possibilities of selling flowers locally through national advertising.

The plan, simply stated, was to get up an association of florists, one to a locality, each to be known in his vicinity as the National Florist. Each member would be authorized to display the trade-mark of the corporation and to advertise himself locally as such. Thus, while retaining his local individuality, he might augment further his present prestige by association with a national advertising aimed to simplify and extend the possibilities of giving flowers beyond purely local lines.

A sufficient number of florists having been won over to the idea, each was to be assessed a membership fee, based on the population of his immediate vicinity, these fees to be used toward a national advertising campaign of education on the desirability of giving flowers and the ease with which this may be done by mail. The National Floral Corporation was therefore incorporated in New York in March, 1915, with a larger fund of carefully directed imagination than working capital.

In December, to catch the holiday trade, the bulk of the advertising

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<sup>1</sup> From *Printers' Ink Weekly* (1) May 24, 1917, p. 115; (2) January 6, 1916, p. 58; (3) May 24, 1917, pp. 115-116; (4) January 17, 1918, p. 25.

was run, four magazines being used. The ads propound the desirability of sending flowers by mail, saying that orders for flowers not 24 hours from the stalk will be delivered anywhere in the United States. They invite remittances by mail and state that in case of complaint the money will be refunded, a bonding company guaranteeing the safety of the remittances. The prospect is asked to write for literature, which forms important cogs in the development of the order. There is a booklet on the subject, "Give Flowers," which explains the proposition as laid out and also preaches the doctrine of the National Florist. With the booklet are included separate slips giving the approximate prevailing prices for various flowers in season, and a blank form with spaces for the names and addresses of prospective recipients, the kinds of flowers wanted, the desired time of delivery and so on. It is also explained that should the remittance be more than enough to cover the cost of the flowers specified, the balance will be refunded. On the other hand, should the money sent be insufficient for the service asked, the corporation promises to meet the sender's wishes as closely as possible under the circumstances.

Another asset offered the florist for his membership fee is the advertising service with which he is supplied to tie up to the national advertising. This consists of a quantity of prepared newspaper ads, from educational copy to seasonal suggestions on the various flowers when they are at their best.

As evidence of the widespread effect of the advertising, in a single week orders were received from places as widely distant as Fort Bliss, Texas; Salt Lake City, Utah; Alexandria, Egypt; Miles City, Montana; Dawson, Klondike; North Bay, Ontario; Havana, Cuba; Turin, Italy, and the Panama Canal Zone.

(3) Whatever the difficulties the Society of American Florists may claim in raising an appropriation for cooperative national advertising were practically set at naught early this month, when the Chicago Florists' Club "scooped" the national association by raising an appropriation and running a page advertisement in the May 5 issue of the *Literary Digest*. Without the signature of any organization, the advertisement was made to represent the entire floral industry. In this broad appeal, the local body planned not only to foster the observance of Mother's Day through the purchase of flowers, but also to demonstrate what can be accomplished by consistent cooperative advertising.

While the line of least resistance pointed to a local campaign, the advertising committee believed that national promotion of flowers would

react favorably on local sales and would also illustrate to all interests what could be accomplished. With no capital for organization work, the committee set about raising its advertising appropriation, not by subscription, but by selling advertising material, which it was able to buy at quantity prices, to individual florists at a small profit—yet for less than the florists themselves could buy it for.

To begin with, the committee checked up about eight special occasions or holidays in the year on which flowers are generally purchased. As a rule, florists were already featuring flowers at these times. With Valentine's Day approaching, a campaign centering on the idea of "Let Your Valentine Be Flowers" was put under way. Mother's Day was the next special day chosen for attention.

#### *Advertising Slogan*

(4) At a meeting of a committee of the Society of American Florists held in Cleveland, a slogan was adopted to be featured in the campaign—"Say it with flowers." Besides being displayed prominently in the national advertising, the slogan is used by members of the association on all its literature, such as letterheads, envelopes, billheads, statements, and even on checks. Flower growers, dealers, retail florists, bulb growers and importers, seedsmen, wire and reed basket makers, and even the ribbon dealers contributed to the fund. It is therefore a campaign financed by the whole allied industry.

This is the crux of the whole plan of the trade, to inculcate the idea that flowers should not be regarded as a luxury, but as a necessity of real value in the asthetic, social, and sentimental sense, and that as long as gifts are gifts, flowers are suitable gifts for all occasions.

Every florist in the city of Chicago is [1916] contributing pro rata to a cooperative advertisement to appear as often as is deemed best, on the subject of the general use of flowers. If this is done by individuals, they can sign their names; if by clubs, then the club name; or some similar plan can be followed.

Under the chairmanship of W. F. Therkildson, of the W. Atlee Burpee Company, of Philadelphia, \$6,000 were raised by subscription. This was followed by a \$5,000 fund from the society itself, and by supplementary subscriptions bringing the fund up to \$36,000.

#### *Advertising for Off Season Sales<sup>2</sup>*

The Allied Florists Association is carrying on an ambitious advertising campaign to increase the regular use of flowers, to equalize the

<sup>2</sup> From *Printers' Ink Weekly*, April 22, 1920, p. 132.



sale of flowers throughout the year, and to eliminate as far as possible the possibility of oversupply.

People's habits are such that the big demand for flowers naturally centers around certain seasons. On Memorial Day there always is a great demand for flowers to decorate graves. On Easter nearly everybody wants flowers. Many flowers are sold also on such occasions as Thanksgiving, Christmas, and other holidays. This big seasonal demand is the thing that has kept the florist going. His everyday business has been more or less of a pick-up proposition. The buying has been left entirely to the people, and no effort has been made to educate them to buy flowers during the great "in-between" season.

The association was formed to apply sane advertising and merchandising principles to the florist business. The object is to "sell" the people on the benefits and propriety of using flowers for many purposes where they are at present used only to a limited extent. For example, more than four million birthdays occur in and around Chicago every year, to say nothing of such important events as wedding anniversaries and the like. Consider the advertising field you have right here. This business is to be sought under the advertising slogan of "Flowers for Birthdays and Anniversaries." Nothing could be more appropriate than flowers for such occasions. There is no need for talking or arguing. The suggestion is enough.

"Say It With Flowers" has appeared in the newspapers, in car cards, and in moving picture reels. It can be seen in the display windows of members of the association. It eventually will appear on the posters. This slogan is varied in many ways. "On Her Birthday Say It With Flowers" is one. "Say It With Flowers" is the association's widespread appeal around Valentine's Day. One florist told *Printers' Ink* that his business from the twelfth to the fourteenth of February reminded him of his Memorial Day and Easter rushes.

On account of favorable weather conditions and unfavorable express conditions, there happened to be an overproduction of carnations. The florists, through their association, advertised them at a special price. Newspaper advertisements informed people that at their local florist's that week they would find some exceptional bargains in carnations—bargains both in quality and price.

This matter of taking care of overproduction is helping to solve one of the florist's greatest problems. Suppose a certain kind of flower is much in demand at a certain season, such as Easter. The growers have to plan and work to have the blossoms mature at that time. It



often is the case, owing to a combination of unfortunate circumstances, that a considerable portion of their plants are only in bud when the special occasion rolls around. This means a lot of left-over flowers.

A favorite selling plan of the florists' association in such contingencies, in addition to the special sale advertising already spoken of, is to sell the flowers in quantities to large commercial concerns for distribution among employees.

The florists' association had rather rough sledding for a time, in a financial way. Finally it was agreed that growers should be assessed  $\frac{1}{2}$  of 1% of their sales and retailers 1% on all their purchases from wholesalers and commission men. It was agreed further that the wholesalers and commission houses should be assessed 1% of their gross commissions.

#### *Florists' Telegraph Delivery Association<sup>3</sup>*

(1) The Florists' Telegraph Delivery Association is an organization with members all over the world. It is possible for you to go into a store of a member of the association and have flowers delivered almost anywhere. They will be exactly what you pay for. They will be delivered exactly when you want them delivered.

Last year's volume was more than \$4,000,000—telegraph orders alone. The big week of the entire year is, of course, the week of Mother's Day. One Detroit florist sent out more than \$6,000 worth of orders during this one week—and received almost an equal amount. The association numbers very close to 1,800 members. In 1918 there were 600 members. In 1912 there were 57.

As to payment, members work under these clauses in the constitution:

All orders shall be exchanged between members at retail prices. On all orders given by any member of the association to another member of the association, the member giving the order shall take a discount of 20% on the gross amount of the order when remitting to the member filling the order.

The offering, or allowing, of a larger discount than 20% shall be construed as evidence of exorbitant prices or inferior service. The acceptance of a smaller discount than 20% shall be construed as evidence of inferior service. Members are positively prohibited from submitting orders to others than those in the retail trade. Any violation of this section shall be referred to the arbitration committee. Invoices for orders exchanged between members shall be mailed within 10 days

<sup>3</sup> From (1) Norman Beasley, "Say It with Flowers by Wire," *Business* (Burroughs Adding Machine Company), January, 1921; (2) *Printers' Ink Weekly*, March 13, 1924, p. 112.

after the order is transmitted and the remittance therefor shall be made 45 days thereafter.

(2) When the National Association of Bankers held its convention in New York City two or three years ago, a local Florist Telegraph Delivery member thought of the plan of suggesting to all F. T. D. members throughout the United States and Canada that they urge the local banks to send flowers to anyone associated with that bank who may have been attending the convention. It was explained that the floral order could be wired to New York and the delivery made to the hotel where the banker was staying. This idea brought a handsome piece of business to the New York florist who conceived it.

A similar plan is often worked when other large bodies convene, such as the opening of a state legislature or a Rotarian meeting. The trouble with the scheme is that many florists have become too zealous in promoting the plan. It is needless to say that it is in very bad taste, for example, to solicit orders for flowers from the family when bereavement enters the household. Also, in too many cases the Florists' Telegraph Delivery Association has engineered "stunts" with no other idea than to get free newspaper publicity. Nevertheless, the fundamental plan of the work of this body is sound.

#### *Illustration of the Use of Telegraph in Sale of Flowers<sup>4</sup>*

Not many weeks ago an attorney went into the store of the Bembs Floral Company, in Detroit, with this request:

"My wife and daughter are traveling in Egypt. My daughter's birthday falls on the same day that they are in Cairo. Is it possible for you to deliver flowers to her on that day?"

"Yes, sir," replied the clerk.

"Can you have them in her room the morning she arrives at the hotel, and can you also have flowers on the breakfast table? I understand their party lands shortly before eight o'clock."

"Yes, sir."

The order was given. The flowers were delivered on schedule. When the young woman and her mother arrived in the hotel thousands of miles from home, there, in front of her in her room, was a beautiful bouquet. Downstairs, on the breakfast table, was another floral decoration. There were flowers, too, for her mother. There, too, were cards from the husband and father, conveying appropriate greetings.

<sup>4</sup> From Norman Beasley, *Business* (Burroughs Adding Machine Company), January, 1921.

## XLVII

### THE GROCERY TRADE

#### INTRODUCTION

THE grocery trade has typically been a "regular" trade. The manufacturers sell to wholesalers and the wholesalers sell to retailers or to regional jobbers who in turn sell to the retailers. The broker is of great importance in this trade as a middleman operating between the manufacturer and the wholesaler or jobber.

Since the manufacturer in many grocery lines may be a comparatively small operator, there has been a tendency for wholesale grocers to establish their own brands to be applied to products purchased from various manufacturers. This has led, in recent years, to rather intensive warfare between manufacturers and jobbers, frequently spoken of as the jobber controversy. Manufacturers, in order to protect the output of their goods, find it necessary to take over some of the functions of the jobber. In return, the jobbers frequently undertake a greater amount of control over their sources of supply. The trend seems to be definitely toward vertical integration, starting both from the ranks of the manufacturers and the ranks of the jobbers. In the last few years the large or national jobber has been losing ground to the manufacturer who is selling direct and to the small local jobber.

The local jobber is in a relatively strong position because increasing population in the cities permits a wider market for a local stock and thus allows a local jobber to carry a reasonable variety of stock. Furthermore, the policy of hand-to-mouth buying, developed since the war, tends to favor the jobber whose stocks are nearer to the retailer and may be called for on very brief notice.

Another tendency, very evident in the grocery trade, is the packaging and branding of more types of products until practically all of the grocery trade is now composed of packaged, branded items. This shift toward the packaged, branded items of uniform grade and quality has enabled national chains of cash-and-carry grocery stores to flourish with a minimum of clerical help and a maximum of satisfaction and certainty to the consumer.



THE WHOLESALE GROCER<sup>1</sup>

(1) The wholesale grocer handles many hundreds of articles on a narrow margin of profit. He is a specialist in the marketing and distribution of goods. The wholesaler has many permanent customers. He is familiar with the trade and knows what is demanded and how to satisfy the demand. His facilities afford the manufacturer a ready market at little expense to the manufacturer. There are more than 300,000 retailers in the United States. If the manufacturer should attempt to sell direct to these retailers, just consider the enormous selling expenses he would be under. He would require a sales force of from 400 to 500 men, and these salesmen would not be able to call upon the small dealers in the small towns; even if they could, the expense would not only consume all profit, but would increase the price the consumer would have to pay.

Another thing to be considered is the saving in freight made possible by the quantity shipments from the manufacturer to the wholesaler. It does not require any stretch of the imagination to comprehend the additional cost to the consumer if the manufacturer made small individual shipments to the retailer.

We must not overlook the manufacturer's saving in storage charges when he deals with the wholesaler. One of the largest producers of food products estimates that by distributing through the wholesaler, he saves on storage charges at least 2 cents a case per month. Local warehouses are not needed by the manufacturer. This is another element that contributes to the placing of food in the hands of the consumer at less than the cost would be if distributed by the manufacturer.

By using the wholesale grocer as his means of distribution, the manufacturer places the burden of retail credits upon the jobber. The manufacturer thus limits his accounts to from 2,500 to 3,000 instead of the hundreds of thousands he would have to carry if he sold direct to the retailer. Thus the manufacturer has a set of good accounts, his credit information is easily obtained, and his bills are usually discounted. This method materially reduces the manufacturer's selling cost and enables him to make more turnovers of his capital. On the other hand, the wholesaler knows his customers, he is in a good position

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<sup>1</sup> From (1) Arjay Davis, in *The Merchant's Index* (Denver, Colorado), April 5, 1919; (2) "Marketing and Distribution," *Report of Joint Commission on Agricultural Inquiry*, 1922; (3) Bernard M. Broudy, *Report on Operating Expenses and Profits of New York Wholesale Grocers During 1924*, New York University Bureau of Business Research.



to check credits, and he finds the problem of retail credits a comparatively easy one. Here again the well informed consumer will quickly recognize that distribution through the wholesaler makes for lower prices.

If it were not for the wholesale grocer, the retailer would experience much difficulty in keeping his stock complete. He would of necessity have to install expensive records of stock and purchases. Think of the amount of time that would be required just to meet the salesmen of 400 or 500 manufacturers or to order from catalogues. Only the very large stores which have responsible, highly trained buyers could continue in business. The retailer would often yield to the persuasion of these competing salesmen and would soon find himself overstocked.

(2) It is the wholesaler's function to carry reserve stock for retailers within a radius of economic distribution and convenience of service. With few exceptions, food products are distributed by manufacturers to wholesalers, then to retailers. There is every indication that wholesale grocers can modify the cost of operation by developing a greater frequency of stock-turn. In 1913 the wholesale grocer had an average stock-turn of 6 times; in 1916, 5.4; 1917, 5.7; 1918, 5.1; 1919, 5.5; and in 1920, the period of greatest turnover shown in the commission's survey, the stock-turn was 6.2. The gross margin of operating expense in 1920 was 8.52 cents, of which 1.14 cents was loss, leaving a margin of 7.38 cents against the dollar of sales. The year 1921 showed a return to a condition of stock surplus larger than either of the preceding years, with only 4.4 turns for the year.

In a measure, the wholesale grocer serves as purchasing agent for a number of retail grocers and maintains contact with manufacturers. He buys in quantities and distributes in smaller quantities to retailers and extends to them credit and service. When the wholesaler serves as a distributing agent for the manufacturer and fails to function as purchasing agent for the retailer and the consumers within the territory supporting him, he ceases to perform a truly economic service.

(3) Reports have been received from 23 wholesale grocers operating in the upstate section of New York, and from one wholesale grocer operating in the metropolitan district. These reports cover operating expenses and profits for the year 1924. In 1924, the annual sales of the upstate companies included in this report ranged from \$377,000 up to \$2,320,000 and average about \$1,084,000. The average profit reported by the New York wholesale grocers in the upstate section was 1.07% on the 1924 net sales.

## RETAIL GROCERS

*"Grocerteria" Stores in the West<sup>2</sup>*

(1) The grocerteria makes possible a very marked saving along several lines that a considerable part of the public appreciates. In the regular groceries the clerk hire is seldom as low as 7% of the sales; the average cost of delivery is 3% of gross sales. In the grocerteria new goods can be introduced only through demonstration. Manufacturers of standard and well advertised brands have a wonderful advantage. Low prices on unknown articles, without anyone to explain their merits or urge their sale, have only a negligible result.

(2) Because of excessive pilfering by customers, the H. G. Chaffee Company converted all its grocerterias into limited service stores, such as it has conducted from the beginning.

*Development of Grocery Stores<sup>3</sup>*

In 1860 there were 40,000 grocers in the United States; today, over 335,000 grocers are in business. During the past ten years we have had an increase of 15% in population; yet during the same period we have had an increase of over 100% in the number of grocers. Recently there has been considerable discussion as to whether or not there are too many retailers, too many grocers. Let us look into the conditions that brought these grocers into being.

Years ago, a barrel of potatoes in the family cellar, eggs from your own chickens, milk from your neighbor's cow, the exchange of tomatoes grown in your garden for the string beans grown in a neighbor's, and baking bread at home, were usual occurrences. But remember that today seven out of every ten people employed are engaged in industrial pursuits. Where is the family cellar today? Where is the pantry shelf? The neighborhood grocery.

The grocer, then, is the great American cupboard. Let's look at what people get from this cupboard. There is a greater variety of goods bought, they are bought in smaller quantities, and they are bought more often. Today, tea is bought by the quarter pound, butter by the half pound, milk by the pint, bread by the loaf.

People's buying habits are constantly changing. Today we eat more fruits, vegetables, milk, sugar, and bread than ever before. Eight years ago there was practically no demand for prepared salad dressing. Last

<sup>2</sup> From *Prices Current*, (1) April 26, 1919; (2) April 6, 1918.

<sup>3</sup> From David N. Walker, Jr., "The Great American Cupboard," address at annual convention of New England Bakers' Association, October 1, 1923.

year the volume of business in salad dressing was \$17,500,000. A few years ago canned milk was a slightly known grocery item. Last year the canned milk business amounted to over \$339,000,000. Twenty years ago only 2½ loaves out of every 10 loaves of bread eaten were baker's bread. Today, in cities, 7 out of every 10 loaves of bread eaten are baker's bread.

The reasons, then, for the big development in the number of retail grocers, are: today, most people are city workers; today, the American population enjoys better education and has more money to spend; today, the public buys a greater variety of goods, buys them in smaller quantities, and more often than ever before.

It has been shown that the chances are 19 to 1 against the average grocer staying in business over 7 years. Out of 100 grocers who start in business today, but 5 will be successful 7 years hence. In the drug, hardware, and department store business, 60% of the stores have a rating of \$1,000 or over. In the grocery store field, only 15% have a rating of \$1,000.

No wonder so many grocers fail! The grocery business is the easiest business to get into and the easiest business to get out of! The independent grocer who cannot compete in education, business experience, and capital is falling an easy prey to the chain store.

### *The Grocery Chain*

The chain grocery development is a most recent one. Ten years ago in Chicago the chain outlets numbered but 50. Today there are over 1,200.<sup>4</sup> Ten years ago chains handled perhaps 10% of the Philadelphia grocery business. Today they handle over 65%. Ten years ago the 600 chain grocery outlets in New York City did less than 10% of the total grocery volume. Last year 5,000 chain outlets in New York City, or 25% of the total number of grocery stores, are reported to have done a business of \$250,000,000—60% of the food purchases of the New York public.

The growth of the Great Atlantic & Pacific Tea Company is a most interesting one. Twenty-eight hundred stores in 1916, 4,500 stores four years later, 8,600 stores today (1923)<sup>5</sup>.

Today there are 40,000 chain grocery stores in the United States. They tend to do a majority of the grocery business in the larger cities.

What is the selling policy of the chain stores? When necessary, they

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<sup>4</sup> This number has been rapidly increasing—EDITOR.

<sup>5</sup> This company is reported in 1927 to have more than 18,000 stores—EDITOR.



cater to brand specification. When goods are not asked for by brand name they tend to substitute private brands. But do the chain stores sell much privately branded soap? No. They sell Lux, Rinso, Palmolive, Ivory, Lifebuoy, Fels Naptha, Octagon and other brands. Why? Because the soap industry is highly organized and there is a high degree of brand specification in the soap business.

But this is not only true of soap; it is true of canned soups, pork and beans, catsup, pancake flour, chocolate, cocoanut, breakfast foods, and numerous other products.

Do the chain stores sell their own brands of bread? Yes, if the business is big enough to justify building their own bakeries, because there is a low degree of brand specification in the bread industry.

Few women go into stores and say, "I want a cake of soap, a can of soup, some pork and beans, a bottle of catsup, a package of breakfast food," without having definitely in mind the brand they want. Yet thousands of women daily go into stores and say, "I want a loaf of bread," and accept the bread that is offered.

The chain stores realize the lack of brand specification for bread today. They realize the importance of their bread business. That's why they constantly feature bread. That's why they carry but one or two advertised brands of bread.

The history of the grocery chain shows that just as soon as it can get enough bread business in its stores in a given territory to justify building a bakery, it does so. But the history of the chain does not show that it builds a cracker and biscuit factory. For crackers and biscuits are bought by brand name.

Not so with bread. When the time is ripe, the chain stores throw out the one or two brands of wholesale bakers' bread they have been carrying as a means of bringing in trade, and supplant these brands of bread with their own.

The baking industry, the third largest food industry in the United States, has not shown the same marked tendency toward centralization. While it is true that there have been several large consolidations of companies in the baking industry, as yet these companies are merely sectional in their field of distribution.

If the tendencies of the last five years toward centralization continue to develop, the large baking companies of the United States will tend to become larger, or necessarily will be supplanted in the baking field by growing companies which are now smaller—in proportion to their ability to overcome the two great selling problems of the baking in-



dustury, selling the grocer and obtaining greater specification for their brand.

*Buying Associations*<sup>6</sup>

(1) With the recent expansion of chain stores in Chicago, many retail grocers are hurrying into buying associations. They expect, through these organizations, to be able to compete on equal terms with the chain stores. Many new buying exchanges have sprung up, and warehouses are being opened for the handling of goods.

The chain store is doing several things for the retailer. It is awakening him to the necessity of buying more economically. It is showing him the value of efficient management of his store and is pointing the value of rapid turnover of stock, a problem to which progressive retailers are giving much thought these days.

Wholesale houses, too, are learning that they cannot load up grocers with whatever it is possible to sell them irrespective of the turnover possibilities.

In a talk before the New York wholesale grocers, Frederick W. Nash, of the General Chemical Company, said that as long as the majority of the people continue to need credit in the purchase of their foods and are willing to pay for organized retail service in both credit and delivery, as long as the retailer can be served by the wholesaler as a banker and an investor in stocks and credit, the system of the wholesaler and independent retailer will have a continually growing field.

The wholesale grocer claims, when admitting that he sold to the chain stores at a lower price, that he was doing so because a sale of large quantities entailed a decreased overhead. The more progressive retailers saw the futility of fighting their wholesale grocer and a number of them combined their purchasing power. Upon that basis they received the same terms as were accorded the chain store or the large competitor.

(2) The chain store, being part of a huge system, can get the advantage of quantity buying. The independents are learning from it in this respect also. Here we come to a remarkable development in merchandising that is giving grocery jobbers something to think about and that will be a growing factor to be reckoned with. Grocers are getting together in neighborhoods or in towns and cities and are pooling their buying. What it really amounts to is the organization of a local buying chain to get quantity prices.

<sup>6</sup> From (1) *The Co-operator*, May, 1920; (2) *Printers' Ink Weekly*, February 5, 1925, p. 125; (3) *Modern Merchant and Grocery World*, November 28, 1925.

This plan is being used successfully in big cities such as Chicago, Detroit, Cleveland, Cincinnati, and Milwaukee. It has taken a firm hold in Omaha and in numerous smaller towns that are large enough to be invaded by the chains.

The working out of the plan in Omaha is typical. Here 70 grocers, including both downtown and neighborhood establishments, formed a chain buying organization. The buying for the entire 70 was apportioned among individuals. Grocer Jones buys the butter, eggs, and poultry for the whole group. He orders the goods just as if they were for his own use. They are shipped to him, he is billed for them, and he pays the invoices individually. The remaining 69 grocers get their butter, eggs, and poultry from Jones, each paying him the proportionate share of the cost. Grocer Smith buys flour and cereals for himself and the other 69. Another buys canned goods, another soaps, and so on.

(3) The disappearance of job lots of distress merchandise, the increased wholesaling and distributing expense of the chains as they have grown into great systems, the elimination of expensive service and the curtailment of much needless credit by wholesalers and retailers, the development of the cash-and-carry jobber and the cash-and-carry department by many wholesalers—all these have tended to a general leveling. Cash-and-carry wholesaling has been a particularly important factor. There are few, if any, jobbing markets where a properly financed retail grocer cannot work out a buying arrangement with at least one good jobber whereby, on the basis of adequate volume and prompt weekly payments, the retailer can put merchandise into his store on a basis competitive with the chain store unit.

Where, not so many years ago, the chain store systems had only the individual grocers as competitors, they have of late run into the most active competition among themselves. This has made necessary a peculiar sort of competitive method.

The chain store merchandising man and the chain store buyer is primarily a price man. Although here and there one now sees a chain store merchandise man who is a seller of quality first and price second, the great majority of chain store buyers and merchandisers have been brought up on low price and have been schooled in buying at a price. This worked well up to a certain point. But when the combined efforts of the chain store buyers brought prices down to an irreducible minimum, there came about a condition in which no single chain store could

find any great advantage over other chain systems. So the price argument wore itself out, to a great extent.

This headed the chain store buyer in the direction of a search for private brands and "off" brands, into manufacturing for himself, and such methods. In turn, that brought the chain store into direct competition with the national advertising of the great variety of well known food products. And through their thousands of salesmen, these national advertisers have educated thousands of individual retailers to use the nationally known brands to build up their local standing.

In passing, it is interesting to note that, originally, many wholesale grocers used nationally advertised brands as a means to build up their private brands. Then came the chain stores and won the consumer's interest with nationally known lines. Later, just as the jobber dropped nationally advertised lines and undertook to build up his private brands, so the chains went into the same groove. Now, the newer school of individual grocer and the newer school of jobber, particularly the cash-and-carry jobber,<sup>7</sup> are undertaking to come back into their own through the aid of nationally advertised lines. It is an interesting situation and permits of much thoughtful consideration concerning the power of national advertising.

#### *Turnover*<sup>8</sup>

A survey of retail grocery stores made by the Harvard Bureau of Business Research in 1923 showed a common figure of 17.3% for operating cost, based on net sales. The common rate of stock-turn was 10.1, while the highest and lowest rates of stock-turn found were 29.2 and 0.55 respectively. As high as 17 turnovers are made on popular brands of soap.

<sup>7</sup> Cash-and-carry jobbing in the grocery trade is of particular importance in the city of Detroit. In one market section of the city, known as "Suicide Row," there are a number of such jobbers operating on very narrow margins. The popular appellation refers to the high mortality in this group.

<sup>8</sup> From *Crain's Market Data Book*, 1925-1926.

## XLVIII

### CANNED GOODS

#### *Results of Small-Scale Production in the Canning Industry<sup>1</sup>*

THE canning industry is an industry of small establishments, which are for the most part in places of small population. The industry is scattered in many sections, so that few of the important kinds of canned foods are packed exclusively in any one state. Furthermore, in most cases the expansion of the size of the business unit and the extension of the kinds of products manufactured have not led to important economies. In fact, the large "general line" packers have shown abnormally high costs and, while charging high prices, have not made unusually high profits.

The small size of the usual canning establishment and the little capital needed for an undertaking, together with the lack of localization in the industry, have placed great difficulties in the way of centralization of control, and up to this time few very effective combinations have existed. The desire of the producer to place some check upon competition and to control prices, however, has led to associational activity which, in certain cases, has been almost as effective as more complete combination for the purpose of affecting prices.

A most important effect of the prevalence of small, scattered establishments on the method of distribution has been the resort to the broker of canned goods. The small size of the ordinary cannery has made the establishment of an expensive selling force impracticable, and the distance of the canners from the jobbers, who are located in large cities, has necessitated recourse to a brokerage or selling agency in the vicinity of the jobber.

#### *Channels of the Trade*

The regular chain of distribution includes the broker and the wholesale grocer or jobber. The product is supposed to move from the canner through the broker to the wholesale grocer and thence to the retailer and consumer. In a large number of cases, however, it was found

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<sup>1</sup> From *Report of the Federal Trade Commission on Canned Goods*, May 15, 1918.



that canners purchased from one another. In 1917, Libby, McNeill and Libby bought in California over \$230,000 worth of canned goods, which were sold under that company's own labels and under those of its subsidiary companies. The true brokerage function does not imply the actual purchase or sale of goods, but merely the arrangement for the transfer from the canner to the wholesale grocer; but brokers in many cases bought and sold on their own accounts in order to make larger profits. In numerous instances, moreover, wholesale grocers sold to other wholesale grocers and even to brokers. In some cases wholesale grocers are known to have sold to packers. The Food Administration, however, has since attempted to check reselling and to keep the product moving directly from producer to consumer.

The broker has been found to be, on the whole, an efficient and economical selling agency, but some general sales agencies, closely allied to the packers, made very great profits for their owners.

#### *Entry of the Meat Packers into the Canning Industry*

The meat packers are considered by the wholesale grocers as their greatest rivals. Swift and Company controls Libby, McNeill and Libby, the second largest packer of canned goods in the United States. Libby, McNeill and Libby markets a considerable part of its pack through the branch houses of Swift and Company. Armour and Company has become the largest jobber of canned goods in the United States. The sale of canned goods of this company increased from about \$6,500,000 in 1916 to nearly \$16,000,000 in 1917. This company did a canned food business in 1917 amounting to more than twice as much as that of the two largest wholesale grocers in the United States. The increasing importance of the great meat packers in the canned food business is a consideration of great importance for the future of the industry. Wilson and Company has been acquiring vegetable canneries in Indiana and salmon interests on the Puget Sound.

By the "Consent Decree" the meat packing companies have more recently agreed to greatly restrict their activities in the canned goods trade. A reversal of the consent decree in 1926 leaves the meat packers more opportunity in this field, but they do not feel free to increase the trade again, perhaps for fear of the public opposition of grocery jobbers.

#### *The Production of Canned Goods*

The producers of canned goods may be divided into three general classes: (1) The first class includes those who pack only one or two

products. The bulk of the canners in the United States lie in this group. Most of those in this class are small, but there are many notable exceptions. (2) The second class includes a small number of packers who pack a general line of fruits and vegetables. They not only put up a very extensive line of goods, but they go out of their immediate localities, if necessary, in order to supply their customers with all of the more important canned foods. (3) The third class includes the very large packers like Libby, McNeill and Libby, Armour and Company, the California Packing Corporation, who pack or handle practically every kind of canned goods. Libby and the California Packing Corporation can a great variety of products and supplement their pack by purchase of other products from small concerns.

A large part of the canners, according to the Census of Manufactures, have small establishments and naturally pack only one or two commodities. Canneries, as already noted, are located in practically every case near the source of the raw materials to be canned. Proximity to the raw materials is a matter of even greater importance than a large labor supply; laborers migrate to the canneries in the packing season. Most canneries are located in small, out-of-the-way places and need brokers in marketing their packs. Some of the larger packers of one commodity, however, have established their brands and do not need brokers, but these packers in many cases allow the wholesale grocers the brokerage fee that they would otherwise have to pay.

The packers in the second class are few in number, but occupy an important place in the industry both because of their size and because of their methods. They attempt to pack a general line of vegetables and fruits under their own brands, so as to fit out the retail grocer with their goods in much the same way as the wholesale grocer does. They use the broker as little as possible; they send their salesmen (often factory men) along with the wholesale grocer's salesmen to the retail trade. These "general line" packers are obliged to make purchases when there is a short pack in one or the other of the commodities they put up; their purchases are usually more extensive than those of even the larger packers of a single commodity.

Packers of the third class are beginning to play a larger and larger part in the industry. The Armour Company has developed its canned goods department so rapidly because of the great distributing agencies which it already had. Armour as a packer produces meat only. But in these other lines Armour is a distributor—practically a wholesale grocer. Swift and Company is a meat packing organization; Libby,

McNeill and Libby, which is really a subsidiary organization of Swift and Company, packs canned vegetables, fruits, milk, and fish. The California Packing Corporation is a combination of four or five of the largest canning organizations on the Pacific Coast and is becoming a more and more important factor in the industry.

### THE DISTRIBUTION OF CANNED GOODS

There are three major links in the distribution chain—the canner, the wholesale grocer, and the retail grocer. The true broker is only a minor link in the chain, and connects the first and second major links in much the same way as the second and the third links are connected by the salesman of the wholesale grocer. This represents the normal channel of trade, which, however, is not always observed. In some cases, the distributive chain is attenuated; in other cases, one or more of the links may be entirely left out. Sometimes a wholesale grocer will sell to a broker, to another wholesaler, or even back to a packer. The large chain stores and the mail order houses regularly obviate one of the major links in the chain. The large general line packers try to dispense with the brokers' services as much as possible. Some of the larger packers of one line market a large part of their pack directly, that is, without the use of a broker, although in some cases the wholesale grocer gets the brokerage fee.

#### *The Position of the Broker in the Industry*

The primary function of the broker in the distribution of canned goods is the arrangement for the sale of the canner's produce to the wholesale grocer. From the canner's point of view, the broker is a selling agent. The broker's relations with the packer, however, may be much more intimate than this primary function would imply. Although the broker ordinarily arranges for the sale of parts of different canner's packs, he may have a permanent understanding or even an agreement to market the entire output of a particular canner, whom he then represents as a general sales agent.

The broker, especially if he be a general sales agent, may help to finance the packer and thereby establish an even closer relationship. This second extension of the broker's primary function represents in part the commission merchant's activities, which include in addition the actual taking over of the canner's pack and the collection of his accounts.



The purchase of goods by the broker on his own account, however, is a secondary function, and is considered "illegitimate" by many in the trade. The broker who buys and sells on his own account is performing what is in part the function of the wholesale grocer; but such a broker differs from the wholesale grocer in that he does not sell to the retail grocer, and even thinks it wrong to do so. The broker who buys and sells on his own account is commonly designated as a "merchandising broker."

It would be inaccurate to say that there are four kinds of brokers corresponding to the four different functions described, because in any one brokerage business one, more, or even all of these functions may be included. Nevertheless, in the majority of cases, one or, at most, two of these functions will be found predominant, and brokers can be and usually are designated accordingly. For convenience of description, then, brokers may be classified as (1) brokers (ordinary), (2) general sales agents, (3) commission merchants, (4) merchandising brokers.

### 1. *The Broker (Ordinary)*

About the first of the year, the packer sends the broker his future prices, which the broker, in turn, communicates to the wholesale grocer. These represent prices for goods that are to be packed about the middle of the year and thereafter. Future prices made so early, however, are subject to change, so that even after a broker has found a customer for a particular part of the pack, the packer's confirmation is necessary before the sale is actually effected. Sometimes the procedure is reversed; the wholesale grocer may negotiate through the broker for the purchase of goods from the packer. However, it is always from the seller that the broker receives his brokerage. When the goods are delivered they are sent directly from the canner's factory to the wholesale grocer's warehouse.

Thus, the broker effects the sale of goods which he never actually has in his possession. The packer bills out the goods on his own billheads in triplicate; one copy he keeps for his own reference; one copy he sends to the wholesale grocer who must make him a remittance; the third copy, he is supposed to send to the broker. But the packer is often negligent about sending the broker the copy of the bill of sale, and merely remits the brokerage with a statement, in which the actual amount of goods delivered does not always occur. Thus,



the broker, as a broker, merely arranges the sale and has little to do with the actual consumation of the transfer.

## *2. The General Sales Agent*

The general sales agent is a broker who either handles a packer's entire output and arranges for the marketing of it in all sections, or one who handles a large part of the output having as exclusive territory a large geographical section. It is easy to see how a packer would get in the habit of using a certain broker for each particular section in which he sells. Indeed, most brokers have permanent agreements of one kind or another with the packer for the exclusive agency in a certain territory, but these agreements are not usually binding on the packers and are for limited sections only. The distinctions between a general sales agent, then, and a broker lies in the fact that the general sales agent has a contract or definite arrangement to market all or a large part of the packer's output, usually without limitation as to section. The general sales agent may and does use a corresponding broker or sub-broker for sales to be made a distance from his vicinity, but he receives the commission or brokerage, and pays the sub-brokers whom he, not the packer, hires.

There are, generally speaking, three reasons why a packer will employ a general sales agent. First, he may consider him the quickest and most efficient means of marketing his pack. Although he usually has to pay a general sales agent a higher rate of remuneration than the ordinary broker, he is willing to bear the extra expense because he has confidence in the sales agent's ability to sell his pack to advantage. Every broker considers it an important part of his duty to keep the packers he sells for informed as to the market conditions. The broker's proximity to and association with the wholesale grocer, as well as his large experience, enable him to give valuable advice to the packer. Second, the packer must use the broker as a general sales agent because the broker advances him money. Advances are sometimes made on specific assignments and sometimes only sporadically, as for the financing of a particular deal; but in many cases the broker regularly helps the owner to finance his pack. Most brokers, however, have such a small capital that they are unable to make such advances. A broker who has financed a canner would ordinarily insist on marketing the entire pack of the canner whom he had helped. Third, the sales agent may act in the capacity he does because his establishment is really an integral part of the canner's organization.

Some brokers have started and own canneries; some brokers have large interests in canneries they represent; the presidents of some sales agencies are the presidents of the canneries sold for. Two of the largest selling agencies in the canned salmon trade, who sell for two of the largest packers of salmon, are so closely connected with the organization they represent that it is hard to distinguish the packers from the distributors. Such general sales agencies are practically selling departments of the packing organizations and have all the functions which brokers, independent sales agencies, or even commission merchants have.

### 3. *The Commission Merchant*

The distinction between the commission merchant and the broker or the general sales agent is often hard to draw. In the distribution of canned goods, the commission merchant is usually a general sales agent who handles the entire pack of the canner, who very often finances the canner, who in many cases bills out goods for him, and who collects his accounts. The commission merchant's functions are more extensive than those of the broker or of the general sales agent. The remuneration which he receives is called a commission and is usually 5%, as over against the ordinary brokerage of 2% or 3%. This commission represents payment for services which the ordinary brokerage does not cover, namely, financing, collection of debt, and so on.

### 4. *The Merchandising Broker*

There are two kinds of merchandising brokers: (1) those who do a small amount of merchandising, occasionally and from necessity; (2) those who make a practice of merchandising because of the profit they expect to realize. A large number of the ordinary brokerage businesses in the United States have always carried on a small amount of merchandising. Every broker finds it convenient, at times, to buy in order to supply small wholesale grocers who are unable to buy the usual carload lots or whose credit might be considered insufficient by the canner. Sometimes the wholesale grocers may be unwilling to buy at the future prices, which the brokers may consider low; the brokers in many cases buy so as to anticipate such customers' needs, and in selling the wholesale grocers later may take no profit even though the market has risen. Although most of the brokers of the United States have done some merchandising, when the Food Administration in November, 1917, required every merchandising broker to register as both

jobber and broker, many of them preferred to stop their small amount of actual purchases and sales rather than apply for jobbers' licenses. This is significant of the small amount and of the importance of their jobbing business. The larger merchandising brokers insist that the reason most brokers do not buy and sell on their own account is that their capital is too small.

### *The Brokerage Rate*

The brokerage rate is usually 2%, but it runs as high as 5% and 7% and as low as 1% and even  $\frac{1}{2}\%$ . The higher rates are paid usually to general sales agents, commission merchants, and to brokers who use sub-brokers. Furthermore, the brokerage rate varies to some extent with the ability of the broker and with the bargaining power of the canner. It seems to vary also with the kind of canned foods sold. Generally speaking, the brokerage rate is higher for the more expensive lines. The highest rates are paid for salmon and sardines. This may be explained, in part, by the wider use of sales agencies in these lines; but the more expensive vegetables and fruits bring higher rates of brokerage than the cheaper lines. The brokerage paid on peas is usually higher than for corn and tomatoes; the rate on fruits is higher than on vegetables but lower than on fish. The opposite might be expected, inasmuch as a low rate on an expensive line may mean as much profit for the broker as a high rate on a cheaper line. However, it is somewhat more difficult to market the more expensive goods, and risks assumed are naturally greater.

### *The Effect of Future Sales on Production, Distribution, and Price*

The method of future selling constitutes an important problem in the study of production and price as well as in the distribution. It is undoubtedly true that future sales are valuable to the extent that they help the canner to finance himself and in that they facilitate the distribution of the product, but their effect on price is a difficult and complicated problem, for the consideration of which careful statistical analysis is necessary.

As early as the winter, or even the fall, the canner contracts with the growers for a certain acreage of vegetables or a certain number of orchards. The canner's contract entitles him to receive the entire crop from this acreage at a certain fixed price. But growers are often very lax in their deliveries when the market for their produce is rising. The canner sells futures to the wholesale grocer against this acreage early in the year. Later, if there is a crop failure, or if the growers



succeed in taking advantage of the canner, the canner is able to make only a partial delivery on his contracts. As a result, the "pro rata contract" has been developed, so that if the pack is smaller in amount than the number of futures sold, the canner is obligated to deliver all that he packed, and each customer is supposed to receive the same percentage of his order as every other customer. As a matter of fact, the canner usually overestimates his pack of some particular grade and is forced to make a percentage delivery.

Future selling is supposed on general principles to encourage inefficient production, but inasmuch as it allows the wholesale grocer to take his time in buying it may enable him to make a choice as between producers. This tends to bring about a regular patronage for the producer who has shown himself reliable and efficient.

The need of future sales is apparent in an industry where the producers are small and financially too weak to carry the risks for any length of time. The small packers use their future contracts with the wholesale grocers as bases for loans without which they could not finance themselves. The larger packer, who has sufficient credit on which to borrow, may sell futures so as to be assured of the sale of his pack. The canner does not like to hold his pack unsold or to carry any of his stock over into the next year. Most canned goods do not keep indefinitely, especially if there are any imperfections in the can. The value of future sales for the canner is generally conceded, but there are evils in the system which regulation, without absolute abandonment, might remedy.

A statistical method of finding the effect of short deliveries on the differentials between future and spot prices has been employed. The average percentages of deliveries made by the packers investigated shows that these differentials in price varied inversely with the rates of the deliveries; for example, where there were good deliveries, as in California peaches and pears, the spot market was even lower than the future market, but where there were bad deliveries, as in corn and string beans, the spot market rose high above the future market.

### IMPORTANCE OF THE CANNING INDUSTRY<sup>2</sup>

Peas occupy third place among the canned vegetable commodities of this country, being exceeded in tonnage only by tomatoes and sweet

<sup>2</sup> From *The Production of Peas for Canning*, United States Department of Agriculture, Farmers' Bulletin No. 1255.



corn. The industry began about the middle of the last century in the region around Baltimore, and its growth has been gradual until now it is looked upon as an important enterprise in the states where peas are grown and canned. The canned product put up in a well managed factory is sanitary and often comes to the table in better condition than many of the green peas displayed for sale in the markets.

#### *Distribution of the Pea Growing Industry for Canning*

The growing of peas for canning purposes was at one time restricted to the Middle Atlantic States. In some sections of these states this industry is still one of primary importance. It is now centralized for the most in the region about the Great Lakes. Wisconsin leads in the canning of peas, while New York ranks second, with an average pack of about two-thirds that of Wisconsin. These two states furnish about 60% of the entire canned pea output of the United States. The industry is developed to a lesser degree in Michigan, Maryland, Indiana, Illinois, Utah, Delaware, New Jersey, Ohio, California, Colorado, Minnesota, Pennsylvania, and Tennessee.

#### *Methods Followed by Cannerymen to Provide a Supply of Peas*

The canning of peas is a specialized industry. For economic reasons, several canning crops are usually grown in the same vicinity. The location of a canning factory is determined by the prospects of obtaining the various crops to be handled at equitable prices and in sufficiently large quantities to run the plant at its full capacity for a reasonable length of time. It is essential that the crops be delivered to the cannery with little delay after harvesting, in order that canned products of a high quality may be prepared. Therefore, the factory must be as near as possible to the production center of the commodities to be canned.

The pea crop is usually under contract, the canning companies specifying the varieties and the acreage to be planted by each grower. In some localities the cannerymen themselves own or lease land upon which they grow a portion of the requirements of their factory. Whatever method is employed in providing a supply of peas, the cannerymen usually assume general direction of the crop, including the selection of the land. Many of the companies exercise the right to provide the seed. They handle these in order that the varieties planted shall be those which are best adapted to the demands of the trade. The canneryman grows

or buys the seed and often sells it to the growers at a lower price than the original cost.

### CANNED SALMON<sup>3</sup>

#### *The Grades of Salmon*

There are five species of salmon which are of commercial importance: "chinook," or "king;" red, or "sockeye;" "medium red," or "coho;" "pink," and "chum." The chinook species is sometimes called "quinnat;" the red, sometimes "blueback" or "quinnault;" the medium red, "silverside;" the pink, "humpback," and the chum, "keta" or "dog." In addition to these species, the steelhead trout, canned chiefly on the Columbia River and Puget Sound, is marketed as "steelhead" salmon. The red salmon, which is found from northern California to the Arctic Ocean, is the most important grade commercially, though in 1917 more pink salmon was canned than any other species. The pink salmon, however, does not command so high a price as the red salmon because its flesh is paler and less firm.

#### *Fish Purchased and Caught by Cannery*

Some salmon cannery employ fishermen to catch the fish needed to operate their plants; others buy fish from fishermen operating independently, while still others catch a part of their supply and purchase the remainder from fishermen, and the cannery in these sections are more dependent upon purchased fish. Thus, during 1917, the cannery located on the "outside rivers" (Klamath, Rogue, Quinnault, Sacramento, Smith, and other streams emptying directly into the Pacific) purchased all the reds, medium reds, and chums. The Columbia River, Puget Sound, Southeast and Central Alaska packers also buy a large part of the fish canned. In Western Alaska, however, where the population is sparse and cannery are located too far away for the small fisherman to venture, the cannery catch most of the fish themselves.

#### *The General Method of Marketing Canned Salmon*

Salmon cannery, like fruit and vegetable cannery, have not as a rule developed their own sales organization and are dependent upon brokers or sales agents for the sale of their goods. Because of the small size of the companies and the limited number of products manufactured, this method of marketing seems to be more economical than the maintenance of a sales force by each canner. At any rate, the canner who

<sup>3</sup> From "Canned Salmon," *Report of the Federal Trade Commission on Canned Goods*, December, 1913.

has a small output, limited capital, and who is located in a section remote from the large markets (as the salmon canner generally is) is unable to maintain a sales organization and must rely upon others to market his product.

Nearly all canned salmon passes through the hands of brokers or sales agents. The sales agent, as distinguished from the broker, is of greater relative importance in the marketing of salmon than in the other branches of the canning industry.

Most of the brokers are located on the Pacific Coast, and Seattle has the largest number of them. Very few of them have a selling organization which extends over the country, and consequently they have to sell largely through brokers located in the various cities throughout the country, paying them a sub-brokerage of from 2% to 4%. Commissions as high as 13½% and as low as 2½%, however, were reported. Several canning companies have selling departments which dispose of their output and generally of the output of one or two other affiliated packers through eastern brokers. The only selling expense of these companies in such cases was the sub-brokerage. Sometimes the president or a member of the firm acts as selling agent for the sale of the pack and accepts the net brokerage (the regular brokerage less the sub-brokerage) in lieu of a salary or as a part of it.

Most of the large salmon brokers own or control directly one or more canning companies, which bring them into close touch with the canners and into sympathy with their interests. Some of the brokers, through advances of money through sales contracts, or in other ways, practically control the output of several canners.

In the salmon canning industry, a sales agent is a broker who has the right to sell all or a specified part of a canner's output or to dispose of all of it except the portion sold to certain persons or in specified places. Most of the brokers acted as sales agents for one or more canners, and generally they carried on at the same time a large brokerage business for canners for whom they were not sales agents.

#### *Labels Used on Canned Salmon*

The labels or brands under which a canned food is sold are valuable to the consumer as guides to the quality of the contents and to the seller as an aid in the marketing of his product. If a label is widely and favorably known, it is very valuable to the person who controls its use. Many canned goods have come to be sold under the broker's



or jobber's label, so that the canner is unknown to the consumer and gets no credit for a high quality.

The percentages of cases sold in 1917 under packers' labels are shown in the accompanying table. This shows that on the average 70% of the total quantity marketed was sold under packers' labels. The largest percentage was in the West Alaska district, where 91% was marketed under the packers' label. This is significant when it is remembered that the larger companies are located in this district. The smallest percentage was in the Puget Sound section, where only 50% of the salmon marketed bore the packers' brands. The brokers' labels were used on 25.5% of the total from this district.

District	Sold Under Packers' Label (Percentage)
Southeast Alaska .....	66.4
West Alaska .....	91.0
Central Alaska .....	73.0
Outside Rivers .....	71.1
Columbia River .....	70.0
Puget Sound .....	50.0
Total .....	70.0

Only 11.7% of the canned salmon was sold under the jobbers' labels, the highest relative amounts sold under such labels being sold by the Columbia River and Puget Sound packers.

The brokers placed their labels on 15.7% of the total. However, 25.5% of the total reported by Puget Sound canners and 21.4% from Southeast Alaska were sold under brokers' labels. On the other hand, only 3.1% from West Alaska and 5% from Columbia River carried the brokers' brands. This indicates that the brokers' labels are more important in marketing canned salmon than in the sale of canned vegetables. Figures for a large Seattle brokerage firm show that 21.9% of the total salmon handled by them in 1916 and 24.2% in 1917 bore their own labels.

Only 174,456 cases, or 2.6% of the total sales in 1917, left the packers' hands unlabeled. These figures, however, may be too small, as this information was not specifically called for in the schedule, and some packers may have failed to state the number of cases shipped unlabeled. Unlabeled goods later bore the brokers' or jobbers' label—presumably the jobbers' label in most instances.

### *The Expense of Marketing Canned Salmon*

The canners' methods of marketing canned salmon have been ex-



plained above. Most salmon canners maintain no sales departments, do little or no advertising, and have few marketing expenses except brokerage or commission. Salmon is sold f.o.b. Pacific Coast, and as freight south from Alaska was included in cost of production no allowances for freight is required in expense of marketing. The ordinary brokerage is 5%. If to this amount an allowance of 1.5% is made to cover cash discount, a result is obtained which is equivalent to a deduction of 6.475% from the selling price. Many canners have no other items which might be considered as marketing expenses.

### *The Meaning and Importance of "Opening Prices"*

The custom has grown up among the salmon canners of naming in the late summer the "opening prices" at which they have decided to sell their newly packed goods. These prices are generally named late in August, when the canning season is well advanced and when the size of the pack is known approximately. The stocks carried over from the previous year (in Seattle, New York, Liverpool, and in the hands of canners) and the estimated demand are also taken into consideration. Of recent years (since 1905), there has been great uniformity in the opening prices, and nearly all canners in quoting opening prices have followed the prices of one or two of the large companies.

All canners do not follow these opening prices. Prices made by the Puget Sound brokers are sometimes slightly higher than those named in San Francisco (for Alaska canners). The trade estimates that about 90% of the total pack is sold at the opening prices.

Whether cooperation or agreement exists among leading packers and brokers in fixing these opening prices has not been determined. It seems that the leading men in the trade discuss market conditions with each other from time to time, but it does not appear that prearranged meetings are held for this purpose.

### *Future Sales and Prices*

Future prices are of less importance in the canned salmon market than in the market for canned vegetables and canned fruits. Although many canners make so-called future contracts, these are generally made on the "s.a.p." basis (subject to approval of price). These s.a.p. contracts are really options under which the buyer can either confirm the purchase of all or of part of the specified number of cases when the seller notifies him of his prices, or can refuse to confirm the contract entirely. During the latter part of August or the early part of Sep-

tember, after opening prices have been announced, the s.a.p. sales become binding contracts for the quantities confirmed by the buyers. It is obvious that such contracts may easily lead to overbuying or speculative buying by wholesale grocers.

## XLIX

### BREAD

#### *General Character of the Industry*<sup>1</sup>

THE baking industry has developed rapidly in this country in recent years, and commercial baking as distinguished from home baking supplies a much greater proportion of the total consumption than formerly—perhaps not far from one-half of the total. Commercial baking is chiefly done either by large wholesale bakers who sell to retail stores or by small bakers who sell to the consumer directly, either over the counter or with house delivery. Besides these may be noted two less important types—the large baking establishments which sell to the consumer with house delivery, and the chain-store bakers, who bake on a large scale and sell through their own units, “cash and carry,” to the consumer.

The small baker who sells to the consumer over the counter is an ancient institution in this country, but the large wholesale baker is of comparatively recent development. In the case of the former, the baker and members of his family often do all the baking and sell the bread or other bakery products. The large wholesale baker, however, conducts the business on the “factory system,” with extensive modern plant, machinery, and apparatus, and a large number of employees, among whom there is an extensive division of labor. It is among these modern wholesale bakers that the recent consolidations have occurred.

#### *Wholesale Bakers*

Speaking generally, the wholesale bread baker sells in relatively large quantities to grocers and other establishments for resale to ultimate consumers. Sales are also made in large quantities to restaurants, hotels, and institutions. Wholesale bread plants produce all the way from a few hundred thousand to over 30,000,000 pounds per annum. Strictly wholesale business is handled chiefly through the operation of city and out-of-town wagon or truck routes, by means

<sup>1</sup> From “Bakery Combines and Profits,” a letter from C. W. Hunt, chairman of Federal Trade Commission, Senate Document No. 212, 69th Congress, 2nd Session.

of which bread is sold and delivered to retail stores once, twice, or even more frequently each day. The balance of this class of business is done chiefly through out-of-town agents who sell to retailers, or by direct rail shipment to retail store customers in the smaller towns and cities. While a considerable number of wholesale baking companies, both large and small, conduct a strictly wholesale business, some of the larger ones are engaged to some extent in selling bread, or bread and other bakery products, directly to consumers through the operation of house-to-house routes or retail stores at the plant. In some cases, the volume of this business done by particular companies or plants may amount to a substantial proportion of the total business. This is particularly true in certain areas where the house-to-house business is extremely developed as, for example, Philadelphia. Data obtained from many wholesale companies would indicate that this house-to-house business of the wholesale baking companies is less than 12% of their total sales of bread.

### *Retail Business*

Retail bakers dispose of their product by direct sale to consumers. Retail bread bakers may be divided into three main classes: (1) house-to-house, (2) over-the-counter, and (3) chain store.

The house-to-house bakers from whom financial results were obtained bake in large quantities but retail to the consumer from door to door.

Over-the-counter bakers are generally small bakers who have no delivery facilities and in consequence retail their output directly at the bakery to individual consumers. Frequently they sell also from house to house or at wholesale.

Chain store bakers comprise those grocery chains which operate bakeries and retail their product over the counter directly to the consumer through their own retail stores. In practically all cases, these plants bake in large quantities.

### *Other Business*

With reference to the character of business done, it may be stated that a number of the wholesale companies, both large and small, produce only bread, but that the largest companies usually have some business in cake or other bakery products. Many plants of the largest wholesalers, however, produce only bread, and in some cases only cake or other bakery products. House-to-house retailers usually produce



and sell a considerable volume of cake or other bakery products, and the same is usually true of the over-the-counter retailer. Such information as was available for the chain store bakers indicates that these plants are devoted primarily to bread production.

### *Data on Bread*<sup>2</sup>

(1) The trend of population in the direction of the urban centers and similar factors affecting living conditions have increased the operations of commercial bakeries to a marked degree.

Authoritative trade estimates place the percentage of bread supplied by bakeries at 60% to 65% of the total consumed in the United States, while bakeries provide about 30% of the cake, pie, and so forth.

The number of establishments in 1923 was 18,572, compared with 20,173 in 1921. These figures do not include several thousand small plants whose annual product is valued at less than \$5,000. The reduction in number is attributed to consolidations.

(2) The baking industry has no marked seasonal fluctuations, since its product is used three times each day throughout the year.

The development of bread wrapping, for sanitary reasons, has been rapid. Nearly all the wholesale bakeries, numbering 2,500, now use wrapping machines which wrap the loaves automatically. A large market for wrapping paper of the "glassine" type has thus been created.

There are a few large chains of bakeries, but most of the plants are individual enterprises. Many use common trade names and advertising and sales promotion material supplied by syndicate houses.

(3) There are 290 chains of bakeries.

Wholesale bakers provide show cases and boxes for grocers who sell their bread.

### *Truck Distribution*<sup>3</sup>

(1) The drivers vie with one another to crowd out each other's bread in order to increase their own percentages, and in their efforts have wrongly educated the dealer to believe that he was not concerned so long as his interests were not affected. Long custom has therefore led him to believe that he had more rights with regard to the distribution of bread than could be exercised with wholesalers in other

<sup>2</sup> From *Crain's Market Data Book* (1) 1926-1927; (2) 1925-1926; (3) 1926-1927.

<sup>3</sup> From (1) *The Baker and Confectioner*, November, 1918; (2) J. H. Hay, *Investigation of the Production, Distribution, and Prices of Bread*, State of Minnesota Department of Agriculture, Bulletin No. 5. 1920.

lines, and he therefore expected more of the bread companies. Too many of them, it is sad to relate, are storekeepers in place of merchants, and that, too, has tended to disorganize bread distribution and has led to the thought that they were endowed with certain unbusinesslike privileges.

Retail grocers come in contact only with the bread salesman and the route boss. Both toady to him in an endeavor to gain his good will and possible preference, and with the representatives of each bakery company resorting to the same diplomacy the operations of each are practically neutralized. Yet at the same time the corner grocer, through this system, has been misled as to his obligations to the point that he has become extremely thoughtless as to his part in the scheme of bread distribution. In no other line of food has he had the same freedom and irresponsibility.

(2) Not many years since, bread was delivered to the homes, much as milk is now. This practice is entirely abandoned today by reason of the expense involved. The grocery stores, being widely and uniformly distributed throughout the cities, and the smaller bakeries being similarly located, furnish excellent facilities for a thorough and general distribution.

Deliveries to the stores generally take place daily. To satisfy the public demand for fresh bread, and in some cases for warm bread, bread is sometimes delivered more than once daily. Several companies cover the same territory and necessarily carry much less than a maximum load, thus increasing the costs of distribution. According to a bread survey made by the Federal Trade Commission, it was discovered that this duplication of delivery in the same territory is general throughout the country and constitutes 17% of the net cost of the bread and 12½% of the price the public pays for it. The Minnesota Public Safety Commission reported that the cost of delivery, including overhead assignable to that branch of expense, was approximately 2 cents a loaf. The department's investigation discloses a delivery expense of 10⅔% of the cost of the bread to the consumer.

Many small bakeries eliminate delivery entirely by selling their product over their own counters, both retail and wholesale. The latter class thus take as a profit what the larger bakeries must carry as an expense. Some bakers who have done a small wholesale business testified that their increasing costs forced them to the conclusion that it would be to their interests to eliminate delivery altogether and confine their activities to retail trade.

*Advertising*<sup>4</sup>

In most cases bakers, the men chiefly interested in establishing the value of bread as a food, pursued the selfish policy of advertising one brand of bread, their own, instead of doing constructive, long-sighted work in promoting the product itself.

From an advertising standpoint, the "Eat Bread—More Bread" movement is unique in that it is being financed and carried out by a concern that does not make bread or sell bread. And it is not directed in behalf of any one concern interested in bread production, but is a general educational campaign directed at the reading public to increase the consumption of bread and hence its production. The campaign is nation-wide in scope and is being carried on through six of the big national magazines, one general and five women's. The concern backing this effort with over half a million dollars is the Fleischmann Company.

The reason, of course, is obvious, and the firm makes no attempt to conceal it—the more bread consumed, the more must be baked, and hence the more yeast will be sold to raise it into the perfect, appetizing loaf. The message that bread is the most wholesome, the most nutritious, and the most economical of all foods is being carried [1919] in full-page advertisements, artistic in design and attractive in color.

*Standard Weight Laws for Bread*<sup>5</sup>

In many states and in most large cities, laws, ordinances, and regulations govern the sale of bread. The sanitary laws very properly set up the conditions under which bread may be manufactured. Such laws regulate the location of the shop, the care of machinery, the health of employees, and the methods of wrapping, protecting, and distributing. Other laws have to do with branding of bread and provide that trade names given to bakery products shall conform to the facts and formulas employed. In some states the name of the baker must appear on a sticker placed on the loaf or on the bread wrapper itself.

Perhaps the most important legislation affecting the sale of bread is the so-called standard bread weight legislation. The laws regulating the sale of bread by weight or by standard loaf vary somewhat in the several states and cities. In some states the baker is required to make loaves of certain definite size, of one pound, one and one-half pounds, as the case may be. A few states allow the manufacture of a smaller

<sup>4</sup> From *The Baker and Confectioner*, October, 1919

<sup>5</sup> From "Standard Bread Weight Laws," *Baking Technology*, April, 1924.



loaf of 12 ounces. Still other states authorize the manufacture of loaves of standard weight without any declaration of weight and further provide that loaves different in size from the standard loaves may be made if they are correctly marked with the weight of the loaf and the name of the manufacturer.

Most standard weight legislation provides certain tolerances on the declared standard weight of the loaf.

There is, however, a simple and accurate method of determining whether or not bread as offered for sale or when delivered at the home of the consumer conforms to the standard set by law or to the weight of the loaf as represented on the label. This method is based on actual weight of the dry bread or on the weight of the loaf corrected to a reasonable moisture content. Since, until recently, there has been no legal moisture content for bread, it has been impractical to employ this method of calculating the weight of the legal loaf, for it is obvious that to assume that the baked loaf should contain 30% or 40% of moisture would set up different standards for measuring its value.

#### *Stale Bread*<sup>6</sup>

The testimony indicates the public's preference for nothing less than fresh white bread and, in some cases, for warm bread. Loaves over 24 hours old cannot be sold at 10 cents. This bread is called stale and is redeemed by the manufacturers and sold for any price offered. In some cases, it is sold or given away for chicken feed. The percentage so handled is small, but the daily aggregate assumes large proportions. The refusal of the consuming public to recognize bread over 24 hours old as palatable and nutritious is strikingly out of harmony with the views of those qualified to determine the food values of bread more than 24 hours old.

#### *Consolidation Movement*<sup>7</sup>

The consolidation movement in the bread baking industry began in 1907 with the combination of seven St. Louis plants to form the American Bakery Company and this consolidation was followed shortly after by several others. In 1911, the General Baking Company, embracing 21 plants, was organized, and in 1912 the Ward Baking Company with 8 bakeries. These were especially important. Numerous other con-

<sup>6</sup> From J. H. Hay, *op. cit.*

<sup>7</sup> From "Bakery Combines and Profits," a letter from C. W. Hunt, chairman of the Federal Trade Commission, Senate Document No. 212, 69th Congress, 2nd Session.



solidations followed in succeeding years: Cushman's Sons, Inc. (7 plants) in 1914; the New England Bakery Company (6 plants) in 1915; Flour State Baking Company in 1916; Massachusetts Baking Company (8 plants) in 1917; Tristate Baking Company (4 plants) in 1919; Campbell Baking Company and Gordon Company in 1920; Nafziger Baking Company in 1921; Standard Bakeries Corporation (8 plants) in 1923; Southern Baking Company in 1924.

In 1921 a movement toward the reconsolidation of various earlier combinations began with the formation of the United Bakeries Corporation, which combined the Campbell and Shults companies, and a number of other plants. The organization of the United in 1921 marked the entry of the holding company as an important factor in bakery consolidation. It was followed by the formation of what may be termed the big four of the bakery industry, the Ward, General, Continental, and Purity companies in the period 1923 to 1924. Moreover, of these four all but the Purity were closely associated.

#### *The Supercombination and Its Dissolution*

On January 30, 1926, W. B. Ward caused to be organized under the laws of the State of Maryland the Ward Food Products Corporation. This new corporation had every appearance of being organized to take over and hold the stock of the three members of the big three in which W. B. Ward and his associates were interested, namely, Ward, General, and Continental, in order to make more effectual a control which was apparently already being exercised in some degree. A few days later, therefore, the government filed a petition in equity in the Federal District Court at Baltimore, not only against the Continental but also against the two Ward and the two General companies and various individuals, alleging a violation of the Sherman Antitrust Law and asking for such injunctions against the companies and individuals as were deemed necessary to prevent such violations by the various parties involved. After extended negotiations, a consent decree was entered by the district court, the more important terms of which, so far as the control of the baking industry is concerned, are as follows:

The Ward Food Products Corporation is ordered to be dissolved.

Certain of the individual defendants and the several corporate defendants are perpetually restrained and enjoined from any act that would bring the several corporate defendants under common control, or that would restrain or monopolize interstate trade in the future.

The corporate defendants are perpetually enjoined from acquiring

the whole or any part of the share capital of any other baking corporation engaged in interstate commerce, where the effect of such acquisition may be to substantially lessen competition in such commerce between the corporation whose stock is so acquired and the defendant corporations, or tend to create a monopoly.

## L

### COFFEE

#### WHERE COFFEE GROWS<sup>1</sup>

THE coffee belt of the world lies between the Tropic of Cancer and the Tropic of Capricorn. The coffee tree, while native to Abyssinia and Ethiopia, grows well in Java, Sumatra, and other islands of the Dutch East Indies.

Mexico is the principal producing country in the northern part of the western continent, and Brazil in the southern part. In Africa, the eastern coast furnishes the greater part of the supply; while in Asia the Netherlands Indies, British India, and Arabia lead.

Within the last two decades there has been an expansion of the production areas in South America, Africa, and in southeastern Asia, and a contraction in British India and the Netherlands Indies.

#### *Location of Consuming Areas<sup>2</sup>*

It is interesting to note the location of consuming areas for coffee as compared to the producing areas. Brazil produces 73% of the world's supply of coffee; the remaining 27% is scattered among tropical countries in relatively small amounts.

The total average consumption is close to 2¾ billion pounds. The United States and Europe are by far the leading consuming nations. The United States alone consumes more than twice as much as any other nation.

#### *Distribution<sup>3</sup>*

(1) Two ports, Santos and Rio, handle practically the entire export of Brazilian coffee. For this reason almost the total Brazilian stock of

<sup>1</sup> From William H. Ukers, *Coffee Merchandising*, The Tea and Coffee Trade Journal Company, New York, 1924.

<sup>2</sup> From a term paper, School of Commerce and Administration, University of Chicago, 1926.

<sup>3</sup> From (1) Preston Owen Rudy, Jr., "The Marketing of Coffee," unpublished thesis, School of Commerce and Administration, University of Chicago, 1918; (2) the term paper previously cited.

green coffee passes through the hands of the commission men at these ports.

A peculiar relation exists between these men and the planters "up country." Brazilian families are always large, and blood and marriage ties are close, second, third and fourth cousins all being considered "members of the family." This situation has fostered commercial relationship; each commission man at an export point is the exclusive agent for a long string of relatives.

As would be expected, the most useful service of these *commissarios* is the concentration and grading of coffee. The coffee comes to them just as it has left the plantation, all sorts, sizes, and qualities intermingled. As soon as the shipments are received at the ports, the coffee is carefully graded and then stored in the huge private warehouses for export.

While these men formerly operated on a commission, they now very frequently buy the coffee outright. The state of the market and shipping conditions will largely determine whether they act as commission merchants or as jobbers. So firmly entrenched are these men, through the practice of handling the products of their "family" and their experience in grading, that they form an important link in the distributive chain.

(2) The Brazilian commission merchant is a very important factor in the distributive organization. Planters are not organized on a scale large enough to export for themselves. The producer's crop is bought by the commission house.

The commission house as a rule has a well established clientele who sell their entire crop each year to this house. Because of the fact that the quality of the product of different plantations and even within the plantation itself varies considerably, it is necessary for the commission house to grade all coffee received and to quote the price on the respective grade.

The commission house sells to the exporters through brokers. (It is to be noted that in the case of Brazil the government now acts as exporter and purchases direct from the producers.) Variations are found to the case. We often find large importers buying direct from the commission house and in rare cases from the producer.

In purchasing the coffee the importer furnishes the exporter a letter of credit on a New York bank, usually for 90 days. The exporter then ships the coffee and sends the bills of lading, completing the transaction as far as the exporter is concerned.



BUYING AND SELLING GREEN COFFEE AT WHOLESALE<sup>4</sup>

Green coffee passes through seven stages of transportation in its route from plantation to roaster. These are, first, from the drying grounds or cleaning plant to the railroad, river, mule, or camel, that secondly, carries it to the city of export; thirdly, into the warehouse at point of shipment; fourthly, into the steamer for movement overseas; fifthly, out of the steamer and onto the wharf; sixthly, into the receiving warehouses; seventhly, from the warehouse to the roasting room.

*Grades of Coffee*<sup>5</sup>

When ready for market, coffee is in the green stage. There are several hundred brands of roasted coffee but comparatively few grades of green coffee. The most important is Santos. Other grades of importance are Java, Rio, Mocha, Bogota, Peaberry, and Blue Mountain.

Green coffee ready to be marketed is classified in general according to weight, grade, and age. Santos number 4 serves as the basis for market quotation.

STORAGE OF COFFEE<sup>7</sup>

Coffee may be classed as a nonperishable product. Under proper storing conditions (dry and odor free), the green coffee bean may be stored for an indefinite length of time, its quality increasing with its age. After roasting, the quality deteriorates very rapidly and consumption should follow as soon as possible.

The ease of storing the product tends to balance the seasonal production characteristic and regulate the supply to meet the demand. Warehouse storing in producing countries makes possible the exporting of proper amounts at all seasons to meet market demands. We find approximately 60% of the crop received at shipping points from August to December. Difficulties in storage found in the case of perishable products are not encountered here.

On the other hand, we find a tendency towards overproduction, due to the fact that it may be stored, the result, of course, being lower prices to the producer and a loss from the social and economic point of view.

In the producing countries the warehouses are located at the great

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<sup>4</sup> From William H. Ukers, *op. cit.*, pp. 69-71.

<sup>5</sup> From term paper cited above.

<sup>7</sup> From term paper cited above.

exporting points, the Brazilian government two years ago having built close to one hundred such warehouses at the port of Sao Paulo for the purpose of handling the entire Brazilian output in such a way as to regulate exports to meet market demands.

In the United States, warehousing is carried on chiefly by the importers. Taking Chicago, for example, we find one large terminal warehouse for the receipt and storage of most of Chicago's smaller importers and roasters. Each importer or roaster has a certain space allotted to him in the warehouse. Here the shipments are stored to await retail sales.

### *Transportation*<sup>8</sup>

(1) The coffee producing countries are not well equipped with railroad facilities. It is therefore necessary to make the voyage, often many miles from plantation to nearest railroad, by carts or oftentimes on the backs of bullocks. The coffee is loaded at the nearest railroad station and shipped direct to exporting points.

At these points, modern devices for loading now make that problem a simple one. Because of the nonperishable character of coffee the time enroute does not affect the quality. The only requirements are that the product be kept dry and free from odors. It has been pointed out that the producing and consuming areas are widely separated, and the water haul is necessarily a long one. This factor is relatively of minor importance in that water transportation is cheap. The rate before the war from Santos to New York was 45 cents per 132-pound bag. Rates to New Orleans are only a cent or two lower.

(2) Only two American coffee roasters maintain permanent Brazilian branches for buying purposes, McLaughlin and Company and Arbuckle Brothers, though numerous other roasters have native representatives. The methods of these two houses, even, are so different that they must be studied separately. Arbuckle Brothers, conceded to be the greatest single roasters, buy a large amount of coffee for speculative purposes. This they sell to smaller roasters, such as wholesale grocers and mail order houses, while a large part of their annual importation goes to their own retail trade. Through their tremendous buying power and great storage facilities, they are sometimes able to disregard the native Brazilian commission merchants and buy direct from the planter. This particular method is an exception to the rule and cannot be taken as

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<sup>8</sup> From (1) term paper previously cited; (2) Preston Owen Rudy, Jr., *op. cit.*

indicative that the commission man's position at Rio and Santos is becoming less strategic.

McLaughlin and Company, of Chicago, on the other hand, have developed their buying business along much more conservative lines. Practically all the coffee purchased is sent directly to Chicago, where it is roasted, branded, and sold to their retail trade.

A cargo of coffee is started from Santos and a cablegram is immediately dispatched to the New York representative. This cable contains a description of the shipment, the quality, and number of bags. Immediately, the broker gets in touch with his customers and the cargo of the ship is usually sold in transit, thus eliminating additional New York storage charges. Since practically the entire consignment is sold by the time the ship docks, the coffee is transferred to freight cars and forwarded to the purchasers. Any residue of the shipment remaining unsold is placed in public coffee warehouses, subject to the disposal of the broker. If the broker expects the market to advance, he often turns speculator, purchases the amount of cargo unsold, and holds it for the market increase. This, the broker claims, is not a regular function of his business, but merely accommodation to his client in Brazil. Fully 99% of the coffee broker's business is done on a commission basis.

Judging from the number of brokers in the United States, they evidently perform a justifiable function. There are literally hundreds of them, for in practically every city where there are roasters, a broker can be found. There are, however, probably not over a dozen exclusive coffee brokers in the United States.

From the broker, the coffee moves to the roaster, where it is prepared for the market by roasting, blending, and branding. The type of roaster varies. There are (1) the independent roaster who markets his own brands, such as McLaughlin and Company, of Chicago and Arbuckle Brothers, of New York; (2) the wholesale grocer, such as Reid, Murdock and Company, Sprague, Warner and Company, Steele-Wedeles Company, and Chase and Sanborn, all of Chicago; (3) the mail order houses, such as Sears, Roebuck and Company and Montgomery Ward and Company, of Chicago, and the Larkin Company of Buffalo, all of which emphasize the coffee department in their organizations; and (4) the chain store, such as the Great Atlantic and Pacific Tea Company.

All the large roasters purchase their supply of green coffee from New York or from Brazilian brokers and sell it under their house brands after preparing it for the market.



*Importing Coffee*<sup>9</sup>

New York is the largest receiving port in the country and the center of the coffee trade, because of the Coffee Exchange of that city. New Orleans is the second largest receiving port and San Francisco third. A feature of the trade of the last few years has been the increased receipts at San Francisco, which gets Guatemala, Honduras, and Colombia coffee. The imports at New York and New Orleans, while consisting of practically all coffees used in the United States, are predominantly from the great Brazil regions.

Chicago is generally accredited as the largest interior distributing center and is sometimes held to be a more potent factor in the distribution of the commodity than either New Orleans or San Francisco.

*Markets*<sup>10</sup>

(1) The fact that 40% of the world's consumption is in the United States and that 97% of all coffee entering this country comes through the port of New York City, has been an influential factor in locating the world's greatest market at this port. New Orleans and San Francisco (since the opening of the Panama Canal) are the other leading ports of entry in this country, yet the price quotations at these ports are based upon the prices quoted in New York City.

The early need for an organized market for coffee was felt about the year 1800. Wide fluctuations in prices led to the organization of coffee exchanges in New York City and at Havre, France, in the year 1811. The organization of the present New York Coffee Exchange took place in 1885.

The functions of the exchange are mainly (1) to provide a suitable building for the purchase and sale of coffee; (2) to adjust controversies between members; (3) to establish rules for trading; (4) to adopt standards of classification; (5) to gather and disseminate market information on coffee.

The coffee exchange is therefore a natural market. The traders in the exchange are in a position to know the conditions of the growing crop, amount in storage, amount afloat, and prices in other markets. This news is published daily and facilitates buying and selling with accuracy, and the New York exchange has come to dominate price quo-

<sup>9</sup> From Preston Owen Rudy, Jr., *op. cit.*

<sup>10</sup> From (1) term paper previously cited; (2) William H. Ukers, *op. cit.*, pp. 31 ff., and 139 ff.



tations for the world. The prices quoted here largely govern the prices in other United States and foreign markets.

(2) Green-coffee buyers in the large importing centers of the United States and Europe recognize two distinct markets in their operations. One of these is called the "spot" market, because the importers, brokers, jobbers, and roasters trading there deal in actual coffee in warehouses in the consuming country. In New York the spot market is in the district of lower Wall Street, which includes a block or two each side on Front and Water streets. Importers, roasters, dealers, and brokers here conduct their "street" sales.

The other market is designated as the "futures" market, in which the trading is not concerned with actual coffee, but with the purchase or sale of contracts for future delivery of coffee that may still be on the trees in the producing country. Futures, or "options," as they are frequently called, are dealt in only on a coffee exchange. The principal exchanges are in New York, Havre, and Hamburg. New Orleans and San Francisco exchange dealers trade on their local boards of trade.

Coffee exchange contracts are dealt in just like stocks and bonds. They are settled by the payment of the difference, or "margin," and it is seldom that the option of delivering actual coffee is executed. The operations generally are either in the nature of speculation on margin or for the purpose of "hedging" against holdings or short sales.

### *How Coffee Is Graded*

The New York Coffee and Sugar Exchange, the most important in the world because of the volume of its business, deals in all coffees from North, South, and Central America, the West Indies, and the East Indies, except the Robusta variety, and uses type No. 7 as the basis for all exchange quotations; all other types are judged in relation to it.

In determining the type, the coffee is graded by the number of imperfections in it. These are black beans, broken beans, shells, immature beans ("quakers"), stones, and pods. For counting the imperfections, the black bean has been taken as the basis, and all imperfections, no matter what they may be, are calculated in terms of black beans, according to a scale which is practically as follows:

3 shells	}	= 1 black bean
5 broken beans		
5 quakers		
1 pod		
1 medium-sized stone		
2 small stones	}	= 1 black bean
1 large stone		

1 large stone = 2 to 3 black beans

By this scale, a coffee containing no imperfection would be classified as type No. 1. The test is made on one-pound samples. If a sample shows six black beans, or equivalent imperfections, it is graded as No. 2; if 13 black beans, as No. 3; if 29, as No. 4; if 60, as No. 5; if 110, as No. 6; if more than 110, as No. 7 or No. 8, which are graded by comparison with recognized exchange types. Coffees graded lower than No. 8 are not admissible to this country.

In the spot market, a trader may also buy or sell coffee "to arrive"; that is, a consignment that is aboard ship on the way to market. Coffee is shipped to New York either on a consignment basis and is sold for a commission, or it may have been bought in the shipping port and already be the property of an importer. When shipped on consignment, a wholesaler usually buys on the in-store contract, which provides that the purchaser must take delivery at the warehouse, though he is generally given a month's storage privilege before removal of the coffee.

The practice among New York importers now is to buy coffee on either the basis of f.o.b. deliver steamer at loading port, or delivery c.&f. (cost and freight) or c.i.f. (cost, insurance, and freight), port of destination. Payment is made by letter of credit on a New York or London Bank, entitling the exporter to draw a 90 days' sight against the shipping documents, so that the shipment will be in the hands of the purchaser long before the draft is made.

Frequently, a jobber acts as his own importer of Brazil coffee, buying direct from the exporter without using the agency of a broker or a regular importing firm.

### *Selling Roasted Coffee at Wholesale*

In the United States in 1923, some 1,500 coffee roasters and 4,000 wholesale grocers were engaged in the business of selling roasted coffee in a wholesale way. A number of these also sold green coffee to retail distributors who did their own roasting.

Most of the roasted coffee sold is ground, although in some parts of the United States there is a growing consumer demand for coffee in the bean. Of the coffee sold in trade-marked packages in 1919 in the United States, about 75% was ground ready for brewing.

The larger wholesale houses generally confine their operations to the section of the country in which they are located, but some of the biggest coffee packing firms seek national distribution. In both cases, branch houses are usually established at strategic points to facilitate the serving of retail customers with freshly roasted coffee at all times necessary.

*Package Coffees*

Since the beginning of the twentieth century, the sale of coffee in packages has increased steadily, until in 1924 this form of distribution competed strongly with bulk coffee. While bulk coffee is still preferred in some eastern sections of the United States, coffee packers are making deep inroads there, to the extent that practically all high and medium-grade retailers feature package coffees, either under their own brand name or under that of a coffee specialty house.

Package coffee has not yet won universal favor. Some of the arguments used against it are that the price is generally higher than the same grade in bulk; that it leads to price cutting by stores that can afford to sell it at about cost as a leader for other articles; that the margin of profit is frequently too close for some retailers; that, when the market advances, some packers change their blends to keep down cost and to maintain the advertised price; and that, when packed ground, there is a rapid loss of flavor, aroma, and strength.

Friends of package coffees point to the saving in time in handling in the store; to the fact that the contents of a package are not contaminated by odors or dirt; that the blends are prepared by experts and are always uniform; that the coffee is always properly roasted, and, in the case of package ground coffee, properly ground; that the brand names are widely and consistently advertised; and that the retailer has the benefit of the packers' cooperation in building up sales campaigns, by means of booklets and local advertising.

*Types of Coffee Containers*

Five types of containers are used for packing coffee; namely, cardboard cartons, paper bags, fiber or paper cans, tin cans, and composite (tin and fiber) cans and packages. Fiber packages include paraffin-lined as well as those which have been chemically treated with other waterproof and flavor retaining substances.

The carton is popular because it takes up less room in storage and in shipment to the packing plant, and also because the label can be printed directly on the package. Another economy feature is its adaptability to the automatic packaging machine, which transforms it from a flat sheet into a wrapped and sealed package of coffee. Moisture proof and flavor retaining inner liners and outside wrappers are generally used to prevent rapid deterioration of the coffee's strength and aroma.

Paper bags are the least expensive containers to be obtained and, when lined with foil or prepared paper, are considered to be satisfac-



tory. Like the carton, the label can be printed directly upon the bag. They also lend themselves to close packing in shipping cases.

Another popular type of container is the paper or fiber can, which is made of fiber board with a slip cover. Fiber cans are also made with tin tops and bottoms, the metal parts supplying a measure of rigidity to the package. These composite packages are made round, square, oblong, or cylindrical.

Paraffined containers are characterized by an outer covering of glossy paraffin and are made in various shapes. In some makes, the paraffin is forced into the pores of the paper base, making for added flavor retaining and moisture proof properties. In this type of package the label may also be printed directly on the package.

In recent years, vacuum-packed coffee has won great favor, first in the West and latterly in the East. Tin cans are used. Vacuum sealing machines close the containers at the rate of 40 to 50 a minute. Private tests by responsible coffee men are said to have shown that coffee in the bean or ground, when vacuum packed, retains its freshness for a longer period than when packed by any other method.

### *Labels*

Coffee packers must give due attention to certain well defined laws bearing on package labels. Before the Federal Pure Food Act went into effect on January 1, 1907, many coffee labels bore the magic names of "Mocha" and "Java," when in fact neither of these two celebrated coffees was used in the blend. Even mixtures containing a large percentage of chicory or other addition were labeled "Pure Mocha and Java Coffee." The enactment of the Pure Food Law ended this practice, making it compulsory that the label should state either the actual coffees used in the blend, or a brand name, together with the name of either the packer or the distributor. When chicory or other addition is used, the fact must be stated in clear type directly following the brand name.

### *Selling Coffee at Retail*

Seven different types of distributors figure in the retail merchandising of coffee in the United States. These are the independent retail grocer, chain store, mail order house, house-to-house wagon route distributor, special tea and coffee store, department store, and drug store.

Considering the methods of merchandising, the seven retail distributing agencies may be grouped into three distinct classes. The first class



would comprise the independent grocer, the chain store, the department store, the drug store, and the specialty store, all of which maintain stores where the consumer comes to buy. The second class takes in the mail order house, which solicits orders and delivers its coffee by mail, and sometimes by freight or express. The third class covers the wagon route dealer, who goes from house to house seeking trade and delivers his coffee on order at regular periods direct to the consumer in the home. As an inducement to contracting for large quantities to be delivered in weekly or biweekly periods, the house-to-house dealer generally gives some household article or the like as a premium to establish good will and to retain the trade of his customers.

The mail order houses confine their sales efforts to agricultural districts and small towns, soliciting trade by catalogs, by circular letters, and by advertisements in local newspapers and in magazines which circulate chiefly among dwellers in rural districts.

The majority of wagon route distributors depend upon the lure of their premiums and upon personal calls to develop and hold their coffee trade. The leading wagon route companies, sometimes called "premium houses," maintain offices and plants in cities or towns adjacent to the territories to which they confine their sales efforts. At strategic points they have district agents who engage the wagon men that do the actual soliciting of orders and deliver the coffee. All wagon route companies handle other products besides coffee, specializing in tea, spices, extracts, and such household goods as soap, perfumes, and other toilet requisites that promise quick sale and frequent reorders.

Wagon route coffee retailing began to make itself felt seriously about the year 1900. At first, the premiums usually consisted of a cup and saucer with the first order, the customer being led to continue buying until at last a full set of dishes had been acquired. Later, the range of premiums was expanded, until today the wagon man offers several hundred different articles that can be used in the home or for personal wear or adornment. Practically all the leading wagon route concerns favor the advance premium method; that is, a special canvasser induces a consumer to contract for a large quantity of coffee and other products in return for receiving the premium at once, though the coffee is delivered only as the customer wants it, generally two pounds every two weeks. The wagon man delivers the coffee and is usually held responsible for the customer's fulfilling the agreement, and is expected to secure repeat orders with other premiums.

The importance of the wagon route plan of coffee retailing is shown

by the fact that in 1924 there were 600 houses of this kind in the United States, and it was estimated that they distributed 10% of the total amount of the coffee consumed in the country. The biggest company was capitalized at \$16,000,000 and operated 1,100 wagons. Most of the wagon route concerns were operating in the central states, practically one-third of them covering the states of Illinois, Wisconsin, Indiana, and Iowa. Pennsylvania is also a wagon route dealer center.

### *The Jewel Tea Company*<sup>11</sup>

Since August 1, the Jewel Tea Company, for 26 years a wagon route house selling direct to the consumer, has been selling its coffee through the regular retail channels in Brooklyn and Queens, New York. Backing its sales efforts with a sizable advertising campaign, the company has succeeded in getting distribution in a short time.

The Jewel Tea Company sells more than fifty different grocery and household products through salesmen who travel along definitely laid out routes in cars, and who cover about 25 states. A big part of the company's sales has been in coffee. It has been a leader just as coffee is a leader with almost any retail grocer.

Nearly every jobber and wholesaler has his own brand of coffee in which he is more interested than in any manufacturer's brand. We tell the dealer our coffee is a superior product because we know coffee, having bought and roasted coffee for 26 years. It is packaged according to the most modern ideas. When our coffee is packaged, the package is dated 32 days in advance. That is, the grocer receiving a delivery on August 24, finds the date "September 25" stamped on the packages. We put this dating on because coffee is not at its best more than 40 days after roasting.

### *Chain Store Retailing*<sup>12</sup>

In the chain store system of merchandising, we see the opposite extreme of coffee retailing. The wagon route man features his delivery service, while in the chain store plan all customers must pay cash and carry home their parcels. Some chain stores, however, maintain more or less complete delivery service. Though the earliest established chain stores gave premiums, the practice has now been generally abandoned.<sup>13</sup> Roasting, blending, and packing coffee in a large central plant, the chain store operator advertises that he can sell coffee at a price lower

<sup>11</sup> *From Printers' Ink Weekly*, August 26, 1926, p. 23.

<sup>12</sup> From William H. Ukers, *op. cit.*

<sup>13</sup> One wagon route chain continues a very effective use of premiums given in advance, based on the assumption that it will receive sufficient future orders to warrant the premium.

than his competitors. As a rule, only one grade of coffee is offered for sale. While it is generally good value, many customers prefer better quality and go to the independent grocer for it. Others patronize the grocer because of his convenient delivery service and because he gives credit on purchases. Chain store organizations seem to be growing rapidly, however, the largest of the chains, the Great Atlantic and Pacific Tea Company, reporting in 1924 that it had nearly 10,000 branches throughout the country, which sell 60,000,000 pounds of coffee annually.

### *Retailing*<sup>14</sup>

The regular channel of distribution from the roaster to the consumer is generally roaster, wholesaler, jobber, retail grocer, and consumer. We find an ever increasing tendency to eliminate some of these middle-men. Some methods of distribution quite common now are:

1. Large roasters who market their own brand, such as Arbuckle and McLaughlin.
2. Wholesale grocers, such as Reid, Murdock and Company.
3. Mail order houses, such as Sears, Roebuck and Company
4. Chain stores, such as the Great Atlantic and Pacific Tea Company.
5. The wagon route, found in small towns and communities.

The wholesale grocers and independent houses tend to sell to the retailer, who in turn sells to the consumer. The mail order houses, chain stores, and wagon routes sell direct to the consumer. This has had its effect on the retail grocer. In the country he must compete with the mail order house, in the small towns with wagon routes, and in the cities with the chain stores.

### *Blending*

Blending gives coffee its different shades of taste. The American coffee consuming public is educated to the taste of the so-called "Brazilian blend." This blend, of course, varies with the roaster brands, the public being familiar with such brands as Monarch, Arbuckle's, and Yuban.

## VALORIZATION OF COFFEE<sup>15</sup>

- (1) The first attempt at regulation of coffee prices by the Brazilian

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<sup>14</sup> From term paper previously cited.

<sup>15</sup> From (1) "Coffee Valorization Policy in Brazil," *The Guaranty Survey*, February 24, 1925; (2) Dr. O. W. Wilcox, in *Tea and Coffee Trade Journal*, May, 1925; (3) *The Guaranty Survey*, as cited above.



government followed the harvesting of an abnormally large crop in the State of Sao Paulo in the season of 1901-02. The action of the state government in this instance, however, was confined to an effort to control production through the restriction of planting.

The failure of the attempt was due to the fact that too much planting had already been done. Coffee trees do not begin to bear fruit until the third year, and only after two or three years more is the full crop obtained. The yield normally increases until about the eighteenth year, and trees continue to bear for about twenty years more. Therefore, by the time the effects of heavy planting had become evident in increased crops, production was already beyond control.

In 1906-07 another extremely large crop was harvested, and it was then that valorization began. The government of the State of Sao Paulo went into the market, bought coffee and withheld it from sale. Difficulties were encountered when it was found that a large part of the coffee held by the state could not be sold except at a loss. Fortunately for the outcome of the venture, the two succeeding crops were small and prices advanced.

In 1910 and 1911 the price of coffee rose sharply and during 1912 it remained at a relatively high level. The ensuing decline was precipitated by the outbreak of the war, which partially or wholly cut off the most important European markets. The valorization plan was resumed, but prices remained low throughout the war. After the signing of the Armistice, the restoration of European markets, together with the virtual exhaustion of stocks and the reduction of crops by frost, caused the price to mount rapidly. From an average of less than 11 cents a pound in November, 1918, it rose to a peak of 23 cents in July, 1919. The decline which followed immediately was almost as abrupt as had been the advance. By April, 1921, the price has reached an average of 6 cents a pound. Valorization was resorted to again, and the price rose with considerable regularity for two years.

In 1923, however, the purchase of coffee by the state was discontinued. Despite the favorable influence of two consecutive short crops, the government had been forced to borrow heavily abroad to finance its holdings and yet was unable to maintain the price. Instead of direct market participation, valorization now took the form of a restriction on exports, similar to the restriction imposed on the exportation of rubber from British dependencies in the Far East.

(2) The Sao Paulo Institute for the Permanent Defense of Coffee has had imposed upon it the duty of organizing "a service of informa-



tion, statistics, and propaganda with the object of increasing coffee consumption and repressing its substitutes." The American wholesale coffee trade has let it be known that it is highly interested in information and statistics on coffee, especially statistics of production and visible supply. The powers conferred on the institute would seem to enable it to locate and account for every bag of coffee within the borders of the State of Sao Paulo and all the other Brazilian states that may cooperate in the new defense; and thus it should be able to make estimates of existing stocks and forecasts of production with unprecedented accuracy.

Every shipment of coffee moving over the railroads of Sao Paulo—which eventually will undoubtedly include all Brazilian coffee—must henceforth move as a lot shipment, identified as the product of a particular plantation and a particular grower, with full information as to origin, destination, number, and weight.

The basis of the power which can be wielded by the institute lies in the tax of 1 milreis gold to be levied on each bag of coffee. If we assume, arbitrarily, that the annual average of Brazil coffee exports is 12,000,000 bags, the institute may be assured of a gross annual income of some \$4,000,000. The funds of the institute may be used for the "purchase of coffee in the Santos market or in any other market of the interior for provisional retirement and subsequent sale, whenever the council deems this measure necessary for regulating the supply."

(3) In attempting to increase returns to growers by such a method, the government must follow one of two alternatives: either dispose of the entire crop for what it will bring and let the taxpayers bear the loss; or sell as much of the crop as possible at an arbitrary price and hold over the remainder to the following season, in the hope that the next year's crop may be smaller or the demand better.

### *Financing*<sup>16</sup>

Due to the change brought about by the passage of the Valorization Act in 1922, the Brazilian government may now be considered the only middleman between the producer and importer in that country. This act stipulates that all coffee produced in Brazil shall be sold direct to the government. The storage function would typically require an immense amount of financing. Instead of this being carried on by the Brazilian government, we find the New York banks carrying the entire burden of financing from the time the coffee is purchased from the

<sup>16</sup> From term paper previously cited.

producer until title is transferred to the importers. Warehouse receipts against the coffee stored in the warehouses are given the banks as collateral for their loans. The United States importer in paying for his coffee pays direct to the New York banks.

The typical importer in this country finances on his own resources. He must pay cash to the New York banks before title passes for the coffee imported. The roaster, in turn, finances the retailer only to the extent of advancing trade credit as is typical in the wholesale trade.

# LI

## TEA<sup>1</sup>

(1) THE per capita consumption among different nations is estimated about as follows:

	Pounds Per Person
Australia .....	7
United Kingdom .....	6
China .....	5
Canada .....	4
Holland .....	1.75
United States .....	1.4
Russia .....	1.25

(2) The great tea growing districts of China are by no means so widespread as is generally supposed. Hunan exports the greatest quantity destined for foreign countries, but Anhui's output is considered superior in quality.

During the last 25 or 30 years, China's export trade in tea has fallen off to a large extent, primarily because of a lack of cooperation among the growers, the employment of antiquated methods in the plant's production, heavy taxation, and, somewhat of late, to disturbed political conditions in the regions where the plant is cultivated. India and Ceylon during the last 60 years have gradually won much of the trade away from China, until today they are supplying the bulk of the world's demand, especially for the coarser and darker-colored teas. This is in spite of the acknowledged fact that Chinese teas are superior to all others in their delicacy of flavor.

(3) China's high-water mark in the tea trade was reached by 1886, when its total exports were 300,000,000 pounds. In 1838 the first Indian tea reached the London market. By 1860 this had developed into a trade of 1,000,000 pounds; prior to that date it may be said

<sup>1</sup> Sources as follows: (1) "The Tea of the Orient," *The Americas*, September, 1916; (2) Raymond C. Mackay, United States vice-consul, Hankow, "The Trade of China," *Commerce Reports*, July 25, 1917; (3) Juléan Arnold, United States commercial agent, Pekin, "Decline in China's Tea Trade," *Economic World*, February 22, 1919; (4) Raymond C. Mackay, article cited above; (5) Thomas Sammons, United States consul-general, in *Commerce Reports*, August 18, 1917; (6) *Printers' Ink Weekly*, August 1, 1918; (7) *idem*, October 11, 1923; (8) editorial, *New West Trade*, October 12, 1918; (9) J. W. O'Mahoney, in *System, The Magazine of Business*, July, 1924.

that China supplied the needs of the entire world. Five years later China was supplying 96% of the world's consumption, India and Java making up the rest.

For the year 1905 there were consumed in the British market only 6,700,000 pounds of Chinese tea, representing 2.5% of the total consumption—indicating that British-grown teas had almost completely ousted Chinese teas in the British markets. It is interesting to note in this connection the rapid rise of Java teas in the tea world; Java's tea exports are soon expected to reach 100,000,000 pounds a year. The displacement of Chinese with Indian and Ceylon teas in the Australasian market has been even more complete. Thus in 40 years' time Chinese teas were almost completely displaced in the British tea consuming markets by British-grown teas. Stranger still, the customs returns of trade from China show that between 25,000,000 and 30,000,000 pounds of foreign teas are being imported into China each year, the bulk from India and Ceylon.

(4) The altitude at which the tea plant is grown is of prime importance in the determination of the resulting product, the finest grades being cultivated at elevations of 3,000 to 4,000 feet. In China, tea is usually grown on small farms located on the slopes of hills and never on large plantations. Each family does its own cultivating, picking, and drying. The tea picking season extends over a period of about four months. The first crop, which is gathered in April, is always the most valuable.

The manufacture of brick tea was first attempted in Foochow in the early seventies. This product is made by pressing tea leaves or tea dust into cakes approximately 10 inches in length, 8 inches in width, and 1 inch in thickness. Foochow's trade in this article prospered until the nineties, when the superior manufacturing and shipping facilities of the Yangtze Valley swung the trade to the Russian firms whose factories were located at Kiukiang and Hankow. In consequence, Foochow now has but a very small proportion of the brick tea trade, Hankow manufacturing the vast bulk of the output, with Kiukiang second, and Foochow a very poor third. Russia has always been practically the only consumer of this product.

In the past, the tea trade of China has been laboring under heavy difficulties which only of recent years have been appreciated by the central government. This state of affairs is due entirely to the fact that Ceylonese and Indian growers are working their plantations under highly scientific instruction while the Chinese are not. In India and



Ceylon the growers do not act as individuals, but as an organized unit that, as the exigencies of the case demand, regulates the output, shipment, and price of the tea on the London market. It is but natural that, working with a definite object in view and using scientific methods, the Indian trade would flourish at the expense of the Chinese, which is largely determined by the caprice of the individual.

A 20% reduction in the export duty on Chinese tea was put into effect during 1915. While this step materially aided the growers, the Chinese government will have to take further action along this same line in order that Chinese tea may meet the competition of Indian leaf, for in India there is no tax on either the production or the exportation of tea. The Chinese grower is under the further burden of having to pay a series of transit taxes, known as *liken*, which are levied on the article from the place of production to the place of shipment. These taxes often amount to more than the original export tax.

(5) The China Tea Company, Ltd., has been organized in Shanghai for the purpose of dealing direct with American tea consumers. This is the first effort of the kind that has been made by a Chinese company, using modern machinery on its tea plantations, to carry on a direct business. The company has five registered brands of tea to offer in quarter, half, and one pound packages, all of which are to be packed in China and distributed in original packages only.

The Chinese tea merchants of Shanghai think that they should display greater activities in promoting the sale of Chinese tea, and to that end an advertising campaign featuring the small package is being inaugurated.

(6) According to Mr. Chuck King-chan, China's tea is being literally advertised out of existence—not their advertising, but the advertising competitors in Ceylon, India and Japan. The difficulty has been that China's tea has always been marketed in bulky packages and has been sold simply as tea and not as China tea. When the competitor came on the market with his advertised package brands, there was nothing to hold the interest in China's product, nobody to talk for it, so it simply has dropped out of the market—although in many ways, flavor being the most important, China's product is excellent. So now the Chinese are going to take a page from the experience of the competitors and advertise China's tea back into favor. And it should also be said here that in case the efforts of the China Tea Company are successful, there is quite likely to follow a general cam-

paign on the part of the wealthy tea guilds (trade associations) to standardize their brands and advertise them in the same manner.

Machines for filling packages have been imported or designed, and trade-marks and package labels have been designed and printed.

(7) A decision to conduct a national advertising campaign in the United States to increase the consumption of Indian tea was embodied in a resolution adopted by the Indian Tea Cess Committee at a meeting in Calcutta. The committee authorized an annual expenditure of £40,000, about \$200,000, for this campaign.

(8) The total consumption of tea of all kinds in the United States amounts to about 100,000,000 pounds a year. This is imported principally from Japan, Formosa, Ceylon, India, and Java. Of this total, from 42,000,000 to 45,000,000 pounds comes from Japan and from 18,000,000 to 20,000,000 pounds from Formosa. Therefore the total import of tea from the Japanese empire is from 60,000,000 to 65,000,000 pounds, or from 60% to 65% of the total amount of tea used in this country.

Shipments are made chiefly to the Pacific Coast, to Seattle, Tacoma, and San Francisco, and carried overland by rail. Some is sent direct by steamship to New York via the Panama Canal. The all-water route is cheaper under normal conditions, so that, were there available tonnage, all tea for the eastern states would be shipped to New York direct. Before, there was much tea shipped direct from Japan via the Suez Canal to Boston and New York, because of the lower freight rates.

There are tea inspectors at all the principal ports of the United States. This work is under the government tea board, which is, in turn, under the supervision of the Secretary of the Treasury. Tea below standard is rejected and must either be shipped back or destroyed. Sometimes, although not often, lots are rejected, which proves how careful the inspection by the examiners is. For this reason shippers are very careful not to ship tea below standard, as it means a big loss.

(9) The Tao Tea Company started in the fall of 1922 to market a specialty—tea balls. Most tea is sold as packages of loose tea leaves. The idea was to put up the highest grade of tea in small gauze bags, each bag containing enough tea to make four or five cups of the beverage. The entire bag is put into the teapot. The selling arguments which were banked on to make the venture a success were quality, cleanliness, convenience, and economy.

FUTURE FOR TEA<sup>2</sup>

Temperance in the use of alcohol is largely responsible for the increased demand for tea and coffee in many countries. In every community where the consumption of alcohol was falling off there was a noticeable increase in the use of tea or coffee.

At the present time, the world's tea consumption is outstripping the world's tea production. The demand is exceeding the supply, prices are higher, tea shares are booming, tea planters and tea merchants are making money. Even China and Japan are sharing in the boom, although both of these countries, latterly, have been losing out to the competition of India, Ceylon, and Java teas.

*Packages<sup>3</sup>*

Ninety-five per cent of tea is brought here in bulk and the rest in small containers holding from one ounce to a pound. About 30% of tea is retailed in cartons, being packed by the wholesale distributors or by those who import for them. Foil packages, tin containers, paper bags, and fiber containers are used, tea being packed in varying quantities up to one pound.

Tea is also increasingly prepared in small cheesecloth bags containing sufficient leaves for one to three cups, and in this form is used by hotels, restaurants, clubs, and on dining cars.

THE LONDON TEA MARKET<sup>4</sup>

When teas arrive in London they are immediately taken to one of the many public bonded warehouses, where they are weighed by H. M. Customs, inspected, and stored until the delivery foreman is empowered to release them. The merchant who owns the shipment, or his agent, selects a broker to whom instructions are given to sell at the public sales in Mincing Lane. This is the usual custom, although in certain cases the produce of the gardens does not pass through the salesrooms, but is sold by private contract. The next step is the notification to the wholesale buyers that certain teas are to be disposed of. This is accomplished by the selling broker's issuing catalogues to all the largest

<sup>2</sup> From William M. Ukers, "Great Future for Tea," *New West Trade*, July 25, 1925.

<sup>3</sup> From *Crain's Market Data Book*, 1925-1926.

<sup>4</sup> From A. Ibbetson, "Tea from Grower to Consumer," in *Commodities of Commerce*, Sir Isaac Pitman and Sons, Bath and New York, 1910.



operators. The conditions of sales are clearly set forth, and together with other details are given date of sale, the garden or gardens where the teas were grown, the quantity and description of each grade, and the lot number. The public warehouse is also advised that particular teas are to be offered at public sale, and it is the duty of the warehouse keeper to see that representative packages of each parcel are put "on show." The large wholesale houses who are interested in the coming auctions then send messengers, known as "samplers," to the various warehouses named in the catalogues, and on presenting their authority to draw the teas, a small sample is taken from the chest set apart for this purpose and given to the representatives of the prospective buyer. So that no loss of tea may accrue to the owner, "returns" of a weight and quality equal to the samples taken away are left at the warehouse by the sampler.

On returning from the warehouses all the tasting samples are immediately put in small tin boxes; this is important, as tea very soon becomes "papery" if left wrapped up. Each tin has a number corresponding with the one which has been stamped in the buyer's office by a hand machine in the margin of the catalogue opposite the tea represented; for example:

Jorehaut, lot 21 Broker's Box 844	30 chs. Pekoe Souchong	655
Khongea, lot 22 Broker's Box 845	90 chs. Pekoe	656

Here 655 is the number of the small box which contains about two ounces of Assam Pekoe representing the 30 chests from the Jorehaut Garden, while in box 656 is a sample of Pekoe Souchong taken from the bulk of 90 chests from the Khongea estate; 844 and 845 are the numbers of the boxes which are used by the brokers to contain representative samples of the same teas in their own offices; 21 and 22 are the ordinary "lot numbers" in the catalogue which are used by the selling brokers to represent the various parcels when the public auctions take place.

When a sufficient number of teas have been boxed, the work of the expert taster commences. A large Indian sale in the busy season will comprise 50,000 packages represented by about 1,200 different teas. It has been fully explained that each parcel has its corresponding sample, so that it means that for one sale alone as many as 1,200 different teas have to be tasted and valued.

The majority of large wholesale houses have more than one buyer for Indian teas. During each week in the season the number of samples



to be examined minutely and critically is so large that it is nearly impossible for one man to give proper attention to the offerings in the time available between the sales. The method adopted, as a rule, is for one to taste all the Pekoe Souchongs, Pekoes, and Orange Pekoes, while a second buyer is responsible for the Dusts, Fannings, Broken Pekoes, and Broken Orange Pekoes, although the arrangement of the grade varies in different salesrooms.

It sometimes happens that a buyer is anxious to secure only tea "for price," that is to say, the lowest quoted at the time. This necessity too often arises, owing, unfortunately, to the demand for common tea being now so much in evidence. He therefore proceeds to pick out, judging by the appearance of the leaf only, the inferior Pekoe Souchongs and without troubling to taste or otherwise examine them, values "on the nose." This expression means that the buyer judges the value of the teas under review by simply smelling them. Orders are then without loss of time placed with the selling brokers so that the bids submitted may be "first in."

The procedure, however, is quite different when the aim of the taster is to select a variety of teas which are to be eventually offered to the discriminating and enlightened grocers in the United Kingdom. The teas to be tasted and valued are first of all sorted out into grades; for instance, the Dusts, lowest Pekoe Souchongs, Broken Pekoes, Pekoes, Orange Pekoes, and Broken Orange Pekoes are separated into different piles, while the Darjeelings are reserved for a special liquoring. So that the taster may have a basis upon which to value, "standards" are used. These are teas either in stock or parcels recently sold which are taken to form a guide as to the quality and value of the offerings under consideration. It will be remembered that each lot to be judged is represented by a small sample which is in a numbered tin.

A batch, as a rule, is tasted from left to right, the inferior teas receiving first attention. As each parcel is valued, the limit to which the buyer is prepared to go is placed in cipher in the catalogue by an assistant, so that when the sales are attended the purchaser will easily recognize the teas he has selected and the prices he has decided to pay. The procedure in the tea sales is the same as that usually adopted in many other auctions. The teas are sold at so much per pound, advances being made by  $\frac{1}{4}d$ . The auctions are conducted at a great speed, and when the teas to be disposed of are low-priced, bidding is extremely rapid, 300 lots often being knocked down in an hour. Each item is not separately announced as is usually the case in the majority

of auctions, but directly one parcel has passed the selling broker's hammer, the next one is immediately bid for. When the market is brisk the lots are knocked down very rapidly, and it is only those with a clear head and considerable experience who are able to follow the various transactions with any degree of certainty.

At the conclusion of the auction, the buyer applies at the offices of the selling brokers and obtains orders to enable him to sample the various lots he has purchased. These orders are presented at the public bonded warehouses where the particular teas are stored, and in exchange for a certain weight of "returns," the same number of pounds taken from bulk are given. It will be instructive to explain at this point some of the regulations dealing with sampling, as often a grocer, when opening a chest, wonders why a pound of tea wrapped in paper has been placed on the top of the package. The reason is that it is necessary to keep the original Customs weight of each chest intact, consequently when a pound—and not more than one pound can be taken out of a chest without special permission—is required as a sample, the one drawing the sample is required to supply a pound of tea similar in style, and approximately of the same value, which takes the place of the tea abstracted from the bulk.

The morning following the day of sale, the agents, or representatives, have before them samples of all the purchases. These are tasted and various lots selected as being suitable for the district. The grocer to whom the pick of the basket is then offered has the satisfaction of knowing that his requirements are being well looked after, and if his knowledge of tea is only meager, yet he will not go far wrong in his purchase.

## B. PRODUCED IN MEDIUM AND LARGE-SCALE FACTORIES

### LII

### FLOUR

#### *Commercial Importance of Wheat Flour*<sup>1</sup>

WHEAT flour has always held an important place not only in the domestic but also in the foreign commerce of the United States. Available data indicate that during the last 20 years the mill value of the annual output has ranged from \$300,000,000 to over \$1,000,000,000 and in recent years consumers in the United States have paid much in excess of the latter amount for their supplies of wheat flour.

The commercial importance of flour indicated by this large volume of sales is the more significant because it is an article of general consumption and must consequently be carried in stock by a very large number of merchants. The increasing concentration of flour mills in recent years has involved large and constantly increasing expenditures for freight, storage, and cartage. Data from the Interstate Commerce Commission indicate that fully 80% of all flour now made is shipped by rail. The consumer must necessarily pay these increased charges.

#### *Concentration in the Milling Industry*

The increase of flour milling in the wheat growing states has been accompanied by a concentration of the industry in certain favorably located cities, the growth of several powerful milling concerns, and an increase in the number of large mills.

Minneapolis, in the Northwest, Buffalo, on the water route to world markets, and Kansas City, in the Southwest, are the most important wheat-flour milling centers of the United States. Statistics of the trade indicate that half the net increase in flour output from 1899 to 1914 was probably made in these three cities alone.

In spite of the increasing concentration in the ownership of the large mills, flour milling may still be classed among industries in which a large part of the output is produced by relatively small concerns each operating a single plant. Nevertheless, the proportion of the total business done by a limited number of large companies is very considerable.

<sup>1</sup>From *Report of the Federal Trade Commission on Commercial Wheat Flour Milling*, September 15, 1920.

This condition is most in evidence in years when failure of local wheat supply stops many of the small mills. It is probable that in such years over half the flour consumed in the United States is made by 100 concerns, 65% by 200, and 80% by 400.

#### *Distribution of Wheat Flour<sup>2</sup>*

A considerable proportion of the flour milled in the United States is consumed at or near the place of production, but at least half of the total output is sold in more distant domestic markets or exported. More than 75% of the flour entering the competitive markets is produced by mills located in or near the three largest milling centers—Minneapolis, Kansas City, and Buffalo.

Many of the large flour mills maintain branch houses in the important distributing centers of the country for the marketing of their output to the grocery and bakery trade, but a considerable proportion of the domestic output of flour not sold at or near the place of production is distributed through the agency of middlemen, of which there are several classes, such as mill agents, brokers, and jobbers. The broker and mill agent usually sell flour in car lots on a commission basis, while the jobber buys flour for resale and in most cases in small lots. There are a few large jobbers, however, who sell in car lots and do not maintain warehouses. The principal customers of the former type of jobber are the small bakers, who buy on credit. The carlot jobbers sell to larger domestic or export buyers, usually for cash.

#### *Marketing Conditions and Practices*

The large number of flour mills in the country, absence of much concentration of ownership, and overcapacity have always made competition keen in the flour milling industry, but since the outbreak of the European war in 1914 competition has been increasingly reduced by the abnormal conditions which have developed. The foreign demand for both wheat and flour has greatly increased, so that on the one hand the millers have obtained a smaller proportion of the domestic supply of wheat for grinding, and on the other hand have had a broader market for their output of flour.

One of the worst evils of the flour business is the multiplication of brands, many of which are not identified by the name of any concern. Heavily advertised brands usually bear the name of the manufacturer or the distributor, but there are a large number of brands sold that

<sup>2</sup> From *Report of the Federal Trade Commission on Flour Milling and Jobbing*, April 4, 1918.



bear no name to which responsibility for a poor quality can be attached. It is on such brands that price cutting is apt to be most objectionable.

The Pure Food Law requires the correct weight to be put on the sack, but does not require the name of the manufacturer or distributor. It would undoubtedly make for much better marketing conditions in the industry if such identification of all flour sold were required.

The worst practice found among distributors was that of contracting ahead for as large a quantity of flour as the mills would sell, with the intention of calling for deliveries if the price went up but of repudiating their obligations if the price went down. This practice was almost entirely confined to more or less irresponsible concerns attracted into the business by the prospects of large profits.

The flour milling industry is characterized by a large number of trade associations, such as the Millers' National Federation, the South-eastern Millers' Association, of Nashville, the Millers' Exchange, of Kansas City, the Ohio Millers' State Association, Indiana Millers' Association, and others. Some of these associations publish frequent price lists for flour based upon reports made by their members. It is probable that these price lists tend to modify competitive conditions in the selling of flour at least within the region covered by an association. This matter is now [1918] under investigation by the Federal Trade Commission.

#### *Flour Jobbers and Wholesalers*<sup>3</sup>

Flour jobbing is carried on by firms engaged wholly in that business, by wholesale grocers, and by firms handling both flour and feed.

The flour jobbing business is of two quite distinct kinds—orders of carload lots, and small jobbing sales in the same city or for local shipment. In the first, the jobber receives the order and places his order with the mill. The flour is shipped direct from the mill to the jobber's customer. The jobber simply makes the sale and handles the transaction; he does not handle the actual flour. On such a transaction he really performs the same function as a mill salesman, and in it he does not make a profit much above the cost of putting a mill salesman on the road and assuming the sales risk. On such sales the gross margin is considerably less than the margin on flour jobbed from

<sup>3</sup> From J. Chester Bowen, *Wheat and Flour Prices from Farmer to Consumer*, Department of Commerce and Labor, Bureau of Labor Statistics, Bulletin No. 130 (August 15, 1913), pp. 42-44.

warehouses. When a car shipped direct from the mill is split between two or more customers, the margin is usually greater than on a car lot.

In the second kind of transactions, the flour jobber buys flour in carload lots, receives it in his warehouse, and distributes it in small quantities to grocers and bakers. He generally has sufficient capital to buy for cash at advantageous terms and has a warehouse in which he can store flour in considerable quantity. Most of the retail grocers and small bakers are without much capital and do not have storage facilities; consequently they cannot for either reason conveniently buy in carload lots. Without the jobber, the mill would have to establish local agencies and warehouses, or the small grocer and baker would have to increase his price or go out of business because of the higher freight on less than car lots. The small dealer buying from a jobber generally buys on time; thus the jobber is the banker of the small dealer. The jobber delivers in small quantities as demand may be made on him; thus the jobber is a warehouseman for the small dealer. The jobber is even more reluctant than the miller as to making contracts for future delivery because of possible repudiation of contracts.

There is no fixed margin of profit, and the margin is claimed by wholesale grocers to be so small that some of them urge their salesmen to push other articles on which a larger profit can be made rather than to push flour and even not to mention flour unless a customer asks for it. Wholesale grocers usually do not like to have a customer's line of credit too heavily filled with flour, which runs into money very fast. The flour jobber, like the grain jobber, aims to make money on the fluctuation of the market even more than on his margin on sales in a steady market. Occasionally a jobber can hold to a fixed margin at least for a time, but in the larger centers competition is so keen that wide variations may be found on the same day on the flour going out to different customers. Gross margins on an even market will average from 40 to 50 cents a barrel on small lots delivered to the customer in the city, f.o.b. at the jobber's station. In city sales, the length of the haul influences the margin. There are firms whose entire business is jobbing flour, but probably more flour is jobbed by wholesale grocers than by exclusive jobbers. In many localities flour is also handled in connection with mill feed, hay, and so on. Such mixed trade is encouraged by the millers, who are always seeking a market for their flour. So great at times is the demand for feed that millers refuse to sell it unless a certain amount of flour is also taken. Flour and feed dealers generally do a mixed jobbing and retail trade in flour.

Their jobbing sales are usually at a profit smaller than that of the larger flour jobber.

#### *Packaging<sup>4</sup>*

The absence of Federal laws regulating the sizes of flour and feed packages and the widely varying state laws and customs have resulted in an unnecessary diversity and multiplicity of packages, thus increasing cost of production and distribution. The need of standardizing the sizes of packages has long been recognized. The laws on such packages do not satisfy this need. Forty-one states have such laws for flour packages, and 46 states for commercial feeding stuffs. Weight marking laws afford no relief from the waste involved in a multiplicity of packages, nor do they give full protection against deception of the consumer.

Not fewer than 34 different sizes of flour packages are now in use in the domestic trade. Reports from 80 representative milling companies show that more than 97% of their combined sales in 1922 were in 12 different sizes of packages, which in fact really represented only 6 different sizes of packages, namely, the barrel, and the half-barrel, quarter-barrel, eighth-barrel, and sixteenth-barrel, and the special 140-pound export sack. The close resemblance between 48 and 49-pound sacks, respectively, affords an easy opportunity for deceiving the uninformed or unobservant purchaser.

Aside from the 140-pound sack, which is the customary size for bulk sales and export business, the entire list of flour packages might well be limited to a few standard sizes each one of which would be so distinctly different in weight as to leave no room for mistake by the purchaser. The proposed "decimal weight law" would accomplish this purpose. It aims at simplicity and economy, and its adoption would remove the unsatisfactory conditions arising from the present multiplicity of packages. This proposed law appears to have practically the unanimous and unqualified approval of all the factors engaged in the different branches of business which have to do with the production and distribution of flour and feed.

#### *Kinds of Flour*

According to prevailing milling methods, there are certain differences in both the flour yield and the quality of flour made from the different wheats, which are of distinct commercial importance. From the heaviest

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<sup>4</sup> From Report of the Commission on the Wheat Flour Milling Industry, Document No. 130.



soft wheat the yield of flour is generally about 80%; from the heaviest hard wheats, about 74%; the lightest soft wheat yields about 65% flour, and the lightest hard wheat about 67%.

Soft-wheat flour has less gluten in it than hard-wheat flour and is less nutritious and savory; but it has more starch, and the loaf made from it is whiter and more attractive. It is therefore particularly suited for being made into crackers, the hot soda biscuit of the Southern states, pastry, and cake.

Hard-wheat flour is rich in gluten, the part of the wheat which builds tissue. It readily absorbs water, and the gluten, swelling several times greater than its dry bulk, becomes elastic and tenacious. It is best suited for making the ordinary white loaf, or "light bread" or "baker's bread." The wheat from which such flour comes is typified in the "Turkey red" of Kansas and the hard spring wheat of the Red River region of North Dakota and Minnesota. Unlike soft-wheat flour, the hard-wheat product is not so well esteemed for making pastry and cake, as, on account of the tenacity of its gluten, it becomes tough when prepared for these purposes.

The flour made from durum wheat has a high gluten content, and in the United States it is used chiefly for making macaroni. In France and Russia, however, it is also made into bread which, though dark in color, has a fine flavor. The dark color of the bread made from durum flour probably has much to do with the prejudice in this country against using it in bread making.

### *Commercial Grades of Wheat Flour*

The grades of wheat flour most commonly sold are patents, straights, clears, and low-grade.

Patents are made of the purified middlings, the flour streams used coming only from the smooth rollers. Its quality is designated by the proportion of the total flour content of the wheat from which it is made. The limitations of a patent flour are not clearly defined, and millers themselves sometimes disagree as to whether a flour is a patent.

In general, patent flours range from about 60% to 90%, but 85% is usually the maximum and is known as "standard patent." In making an 85% patent the distribution of 100 pounds of flour produced is 85 pounds of patent, 10 pounds of clears, and 5 pounds of low-grade. A "short patent" may contain only 60% to 70% of the total flour content and is a much more concentrated flour than the standard patent.



A clear flour is a grade between patent and low-grade, being not good enough for the former and better than the latter.

When the miller makes a patent flour, that part of the flour which does not go into the patent goes into the clears and low-grade; consequently, when a standard patent is produced the proportion of the clears is decreased and when a short patent is made the quantity of the clears is increased. A short patent is higher in grade than a standard patent and a "long" clear is higher than a "short" clear.

A straight flour is the result of mixing all the flour streams except the low-grade; in other words, a mixture of the patents and clears is all the flour obtained after the feed and low-grade have been removed. There may be variations of a straight flour, as a "cut" straight, from which a small percentage of the patent has been removed. A 50% cut straight flour is made by taking out 50% of the patent (containing 80% of the flour content) and running the other 50% with the clears, so that of 100 pounds of flour produced, 58 pounds are cut straight, 40 pounds patent, and 2 pounds low-grade. Again, a small percentage of clears may be added to a straight flour, the result being a "filled" or "stuffed" straight, which may be practically the same as a cut straight, as the addition of clears, which are of lower grade than the straight and patent, may reduce the straight to the same quality as is produced by the extraction of a given quantity of patent flour.

Low-grade, as the name signifies, is an inferior flour and is the flour leavings after the patents, clears, and straights have been sifted out. The low-grade produced in grinding is ordinarily 5% of the total flour, so that when a straight flour is made, 95 pounds of 100 are straight and 5 pounds are low-grade.

### *Exports*<sup>5</sup>

The maximum exportation of flour was reached in the fiscal year 1919, when more than 24,000,000 barrels were shipped. This high figure was essentially the result of war conditions, and the subsequent decline was entirely to be expected. As European countries have more nearly returned to normal conditions, they have milled a larger proportion of the flour that they consume. The decreased exportation of flour in the fiscal years 1922 and 1923, however, was a natural accompaniment of the decreased exportation of wheat and flour from Canada.

<sup>5</sup> From Bureau of Foreign and Domestic Commerce, *Commerce Yearbook*, 1922.

## LIII

### MEATS<sup>1</sup>

#### THE WHOLESALE MARKETING OF MEATS

##### *Varied Market Demands Necessitate Elaborate Sales Organization*

THE packer must have a sales organization capable of supplying the varied demands of the market which he supplies. The local, regional, and national packers each perform different functions in supplying the market. The local packer who supplies the territory immediately adjacent to his plant does not have the same complicated marketing problem as a large packer supplying national and international markets. The following excerpt from a lecture by F. Edson White, president of Armour & Company, makes clear that the demands for meat products vary greatly in different sections of the country. The packer selling organization, to be effective, must be able to supply these varying demands.

*Geographic variation in demand.* Consumptive demand varies greatly among the populations of different sections of the country. The kind of beef or pork most desirable for the New England markets does not find a ready sale in the Southern States, for example. The beef slaughtered along the Pacific Coast could be marketed only with difficulty along the North Atlantic. Adequate distribution demands that provisions be made to supply the actual wants of a section, and it many times happens that these wants can be supplied only by going beyond the packing center most conveniently situated to supply them.

*Variations in beef demand.* Perhaps a detailed discussion of some of these fluctuations in demand will present the idea more concretely. For example, the beef trade is largely based upon New York and New England. New York, Jersey City, and the adjacent regions take all grades and classes of beef. The down-town houses in New York City handle a varied assortment, mostly weighty, for the large shops and the hotel and restaurant supply trade. These houses handle almost everything except yearling beef. On the other hand, the Hudson River territory, to the north of New York, demands a greater proportion of medium to choice carcasses with lighter weights, while the Long Island

<sup>1</sup> From L. D. Weld, A. T. Kerney, and F. H. Sidney, "The Marketing of Packinghouse Products in the United States," in *Economics of the Packing Industry*, published by the Institute of Meat Packing, 1926.

and the Harlem sections of the city constantly demand the best light carcasses, predominantly yearlings, available. Philadelphia takes a general assortment like New York, demanding all grades from plain to choice, but their price levels are likely to run lower except on the good to choice carcasses.

*Kosher beef.* In New York we come in contact with another factor affecting distribution. There are more orthodox Jews in New York City than in any other great consuming center in the country, and the orthodox Jews require kosher beef. Kosher beef, under ordinary conditions, must be in the hands of the consumer within 72 hours after slaughter. Consequently, western killed beef will not serve to satisfy the needs of New York's Jewish population, because it ordinarily takes a beef train four days to move from Chicago to New York. This fact accounts for numerous slaughtering establishments adjacent to New York which would otherwise not be there. Many of the corn-fed steers from the West are shipped alive to New York to be koshered, and it is noteworthy that the Jews require a very high-grade meat animal. For obvious reasons, kosher beef is ordinarily somewhat higher in price than regular beef.

*New England beef trade.* Boston is the market of heavy beef. The carcasses must be strong and well finished, steer beef running from 800 pounds up and cow beef from 600 pounds up. Boston is really the hub of the entire New England beef trade, although southern sections of New England usually vary from the northern and western ones by demanding lighter sides. The farther south one goes along the seaboard, the lighter the carcasses in demand. Not only lightness but leanness in beef best suits the consumers of Old Dixie.

*Mid-West beef trade.* The Mid-West, composed of the east and west North Central States, consumes the fair to medium grades, with more fed cattle than are included in the South or West. The most desirable carcasses for this section weigh from 400 to 600 pounds, but should not be overly fat. The principal cities of this section—Chicago, Milwaukee, St. Louis, Kansas City, and Omaha—with their adjacent selling territories, are relatively uniform in their demand. All classes of beef may be sold, but principally light butcher cattle are desired. The shop trade in particular demands yearling heifers and steers which are medium to choice in quality.

An interesting vagary of demand is illustrated in the Twin Cities, Minneapolis and St. Paul. Minneapolis seeks more fed cattle than St. Paul and maintains a more active market, but Minneapolis cattle preferably weigh from 300 to 600 pounds in the carcass, while St. Paul cattle weigh from 500 to 700 pounds. Further examples might be drawn from other sections, but the foregoing illustrates the general problem to be considered in beef distribution.

*Variations in pork demand.* These questions are not confined to beef, however, but apply to the lamb and mutton trade and to the



pork trade as well. Before the war, the Southeast was the best outlet for the large, dry-salt bellies to be sold in the negro trade, while the white trade demanded light bacon, with four to six pound bellies in greatest demand. New England, on the other hand, asked for the same mild-cured bacon, but was willing to use ten to twelve and twelve to fourteen pound bellies, provided they were solidly meated and of good quality. Hotel and restaurant trade desires pork loins and hams weighing about ten pounds, while shop and family trade insists that the same cuts of meat must weigh less.

*Marketing biggest problem of packing.* This survey of sectional demands for meat products makes it apparent to the careful observer that the slaughtering of live animals and the dressing and shipping of carcasses is the easiest part of the business. The big job is to find markets. We must have facilities for doing business in a sufficient number of consuming centers to assure an outlet for our product and to permit the closest possible contact so that each grade of meat may go to the market demanding it the strongest and willing to pay the most for it.

#### *Marketing Agencies of the Packers*

Direct to retailer distribution in the packing industry has developed largely because of the perishable character of meat products. This factor has also resulted in the development of certain well defined agencies which insure the quick delivery of the kind and quality of meat products to the retailer which the consumers in each territory demand. Small packers sell direct to retailers within a restricted area. Medium-sized packers cannot market all their products in the immediately surrounding territory and have found it necessary to rely upon wholesale meat dealers and jobbers to effect distribution in the more distant markets. They have also found it desirable to establish a few branch houses in order more effectively to handle the distribution of their products in the largest markets. Thus we may find medium-sized Iowa packers supplying their local territory, distributing the remainder of their production through jobbers in some large towns and through a branch house in the Chicago and New York markets, where their sales may be large enough to justify this more elaborate selling organization. At certain seasons, large quantities of some products may also be sold through brokers. The large national packers with a still larger volume, supplying widely differing demands throughout the country, find it advantageous to go a step further and distribute principally through branch houses and car routes, supplemented where necessary by brokers and jobber distribution. Let us consider each of these marketing agencies in turn.



*Brokers and Jobbers*

*The broker.* Although the meat packer ordinarily sells direct to retail stores, it is not always the case. There are independent brokers and jobbers in practically all the important markets. The broker handles meat products, chiefly provisions and oils, in large quantities. Except in rare instances, he does not become the owner of the meat he handles, but operates on a commission basis. The broker is an important factor in operations which center about sales of provisions on the Board of Trade. Packers often have occasion to purchase or sell lard, pork products in process of cure, and fats and oils in large quantities. For example, a small Iowa packer accumulates large quantities of lard and other provisions at certain seasons which his own sales organization is not able to market directly. By availing himself of the services of a broker, he is able to sell these products in carload quantities. The broker, being in close touch with the market for these products, may in turn sell them to other packers who can use them, to wholesalers, or to foreign purchasers. Brokers usually specialize. Some brokers may deal heavily in lard and buy and sell other provisions in much smaller quantities. Others may specialize in stearine, tallow, or grease. Still others confine their operations to by-products.

Brokers, however, may also at times buy meat products outright, as do wholesalers or jobbers. This is particularly true in the South, where brokers sell a portion of their consignments on commission and buy some others outright for sale to wholesalers and large retailers.

*Wholesalers or jobbers.* Wholesalers or jobbers purchase meat from packers outright. In the earlier days of the industry they played a very important part, especially in the distribution of cured pork products. Both large and small pork packers, in and around Chicago, use wholesalers extensively, especially for distribution in the South. By 1900, however, the large packers had built up their own distributive organizations to such an extent that they had to rely but little on wholesalers. The appearance of branded products helped in this movement toward direct sale.

Jobbers are still an important factor, however, in many markets. In Boston, for example, there are big meat jobbing concerns which handle a large part of the fresh meat trade of the city, and even the large packers use them extensively in order to reach the retail trade most effectively.

*Meat peddlers.* There are also small jobbers in practically all mar-

kets. They usually do not have stores and refrigeration facilities, but buy their meats from packers each morning and distribute from their wagons during the day. They are sometimes referred to as "wagon men," or "wagon jobbers." They sell principally to very small dealers, especially in the outlying sections of larger cities. These small dealers buy in extremely small quantities and many of them are poor credit risks. For these reasons the packer is likely to find this class of trade very expensive and unremunerative. The wagon jobber with a very small overhead expense and with his better acquaintance with small dealers can handle this trade effectively.

*Hotel supply houses.* There is another class of jobbers found in the larger cities, that cater to hotels, restaurants, and the like. They are frequently called "hotel supply houses." Their business is a highly specialized one. They have to carry the particular classes of meat demanded by large hotels and restaurants. Furthermore, the buyers of hotels are a difficult class to deal with.

#### *Branch Houses*

The packers sell direct to retailers not only through their own branch houses, as indicated in the foregoing discussion, but they also sell through car routes. Branch houses are located in the larger cities and towns. They serve not only the cities in which they are located but also the surrounding territory, to which deliveries are made by truck or by express shipments on the railroads.

The packers' branch houses perform the same functions as jobbing houses. In other words, by selling direct to retailers the packers do not eliminate the expense of performing the functions ordinarily performed by jobbers. A branch house means capital investment in land, building, refrigeration facilities, delivery equipment, and so forth. A regular staff of salesmen, meat handlers, accountants, and others has to be maintained.

Aside from the general advantages of selling direct to the retail trade, the principal advantage of maintaining branch houses lies in the ability to carry a complete stock of beef cuts and of various qualities. Almost immediate attention can be given to the wants of customers. Customers can also go to the branch house to select their own meats. In some cases, the branch house also becomes a manufacturing establishment, in that it may make sausage for local distribution and that it may have smokehouses for smoking ham and bacon. In such cases, ham and bacon are shipped to the branch house in the "pickle."

The advantage of this arrangement is that ham and bacon should be sold as soon as possible after they have been smoked.

### *How Branch Houses Operate*

The following description of branch house distribution is taken from the 1922 *Year Book* of Swift & Company.

Swift & Company reaches retailers in many cities and towns through its branch houses, which sell a complete list of Swift & Company products. The list includes fresh, cured, and smoked meats of all kinds, meat specialties, poultry, eggs, butter, cheese, oleomargarine, lard, shortening, cooking and salad oils, and soaps.

*Branch house cities.* The company has about 400 branch houses, mostly in the eastern United States. They are located both in large cities and in medium-sized cities having a number of nearby towns which can be conveniently supplied by express or by automobile trucks. In some instances in the Far West, where the population is scattered and cities widely separated, a branch house may sell in towns a hundred miles or more from its location.

*Manufacturing branch houses.* Some houses located at long distances from plants receive hams and bacon in cured condition but not smoked. Such houses must have smoke rooms. Many cook hams. Some also manufacture sausage, and these must have sausage making equipment. Such houses are called "manufacturing branch houses."

The reason for carrying on these processes in branch houses is to supply the trade promptly with freshly prepared products of the best possible flavor.

Retailers buy their supplies from branch house salesmen who call at their shops, or by telephone, or by visiting the branch house. In the selection, particularly of fresh meats, most of them come to the branch houses of all the packers, look the meat over, and "dicker" for the lowest price they can get. In most places the branch house delivers the retailer's purchases to his shop. The retailer is expected to pay for his meats in one week. He can take a longer time on some goods of a less perishable nature.

### *Car Routes*

Car routes reach small towns that are inaccessible to branch houses. Retailers in thousands and thousands of towns are served in this way. This form of distribution represents direct sales to retailers without even a branch jobbing house intervening. One of the large packers distributes about 80% of his meats through branch houses and the other 20% through car routes.

The simplest way to describe a car route is to say that a salesman calls on the retail dealers in towns tributary to one of our plants. He



travels along a certain line of railroad and has a definite schedule of days upon which he makes these calls and sends his orders to the plant. A refrigerator car is loaded and sent out over the line of railroad covered by the salesman, and the orders are dropped off at the proper stations for the various buyers. These cars, too, go out on a schedule, at the same hour and on the same day of each week, so that the retailer knows just when his supplies will reach his shop.

*Speed and accuracy.* The work of filling these orders at the plant is highly organized to secure both accuracy and rapid handling. To illustrate, suppose a car must leave the loading dock at 12 o'clock noon. Orders for goods to go in this car must reach the office not later than 9:15 that morning—just  $2\frac{3}{4}$  hours before the car pulls out. Fifteen minutes is allowed for typing the order, checking the prices, and making the necessary number of copies to go to all the different departments from which a given customer's goods are to come. Another fifteen minutes is allowed to distribute these copies to the proper departments. New accounts must be passed upon by the credit department. At 12 o'clock these departments will have sent their goods to the loading dock and loaders will have loaded them into the car, while a checker checks them carefully off the list to make sure everything is correct. The goods must be loaded in "station order"—that is, those for the first stations must be nearest the door. Within an hour from the time the car leaves the loading dock the bill of lading and invoice must be ready.

Of course, before this loading takes place the car must have been iced for several hours. Each car requires about 5,000 to 6,000 pounds of ice and 500 to 800 pounds of salt.

In order to satisfy our customers' needs, over 65% of these cars out of our Chicago plants must leave on Wednesdays and Saturdays. The same thing is going on proportionately from seventeen of our plants in the United States.

*Large volume.* Our car route system delivers supplies to nearly 10,000 towns, many of which could not get as good a supply of meats regularly in any other way. To take the orders, get them to the plants, copy and distribute them to departments, assemble the products, load, ship, and deliver them is no mean accomplishment.

From the standpoint of the consuming public, the advantages of car route distribution are that thousands of small towns and millions of people have a constant supply of high-quality meats in the best of condition. When small towns have to rely on their own local supplies,



they have inferior meats, the supply is uncertain, and there is no Federal inspection. Through the use of car routes, these difficulties are overcome.

### *The Value of Future Trading in Provisions*

There is a certain amount of future trading in provisions on the Chicago Board of Trade, just as there is future trading in wheat, corn, and oats on that exchange. Board of Trade operations originated when the pork packing industry was much more seasonal than it is today and when packing plants were entirely or partly closed down during the summer. At that time, a future market was practically necessary in order to stabilize prices throughout the year. With the development of mechanical refrigeration, the hog packing business became a year-round proposition. Also, the large packers developed a nation-wide merchandising organization, which made for less dependence on the Board of Trade to find a market for their pork products.

Only a small part of the hog can be traded in for future delivery on the Board of Trade. The principal products that are so traded in are lard, short ribs, and clear bellies. Mess pork used to be traded in for future delivery, but that product has become so nearly obsolete that future trading ceased in 1922. In fact, the Board of Trade, although still performing a worth-while and important function in the pork trade, is not so important to the industry today as it was 25 years ago.

## THE RETAIL MARKETING OF MEAT

### *How Retail Cuts Are Priced*

It is estimated that there are more than 220 thousand retail meat shops in the United States. Many of these are run in conjunction with grocery stores. Since it is in the retail store that the consumer comes face to face with prices that often seem unreasonably high, the matter of pricing individual cuts of meat is exceedingly important. This subject is discussed in Swift & Company's 1921 *Year Book*, in the following words:

When beef is sold at retail, the wholesale pieces are cut up into even smaller subdivisions and sold at varying prices. The first two or three ribs, for example, might be sold by the retailer for 40 or 45 cents; the next two or three ribs for a few cents less; and the other ribs at even lower price.

*Why Prices Vary.* It is misleading to compare the retail price of a single cut of beef with the wholesale price of a whole side of beef

or with the price of live cattle. Only a little over half the live animal is meat, and even at wholesale the prices of the different cuts vary according to their desirability. It must also be borne in mind that there is a very wide variation in the quality of live cattle and meats, which results in a great diversity of retail prices in different stores and in different communities. Retail prices also vary with the amount of service furnished by the retailer.

*Better beef higher priced.* The average retailer's cost of doing business is around 20% of his sales. Some have higher costs on account of extra service demanded. If he pays 17¼ cents for a side of beef, he must average, therefore, substantially over 21 cents a pound to make a profit. In order to do this he may have to get 50 or 60 cents or more for porterhouse steaks of this quality. For better quality beef he would have to get higher prices.

### *Expenses and Profits in Retail Meat Shops*

It is only recently that there has been authentic information on the cost of doing business in retail stores. The United States Department of Agriculture and Northwestern University in cooperation, however, have recently made careful studies of operating costs. In a preliminary report put out by the Bureau of Economics of the Department of Agriculture in May, 1924, the average cost of doing business in 143 retail meat shops in Chicago, Cleveland, and New York for the year ending February 1924, was given as follows:

#### EXPENSES IN RETAIL MEAT SHOPS

Item	Percentage of Sales
Wages .....	12.5
Rent .....	2.2
Ice and refrigeration.....	1.0
Wrappings .....	.8
Other expenses .....	3.0
Total expense .....	19.5

The average yearly sales of these 143 stores was \$45,000. Out of the 143 stores which reported, 42 showed a loss and 101 made a profit. Commenting on this, the Department of Agriculture said:

This means that two out of every seven stores were not successful. If the owners had sold their shops and gone to work for someone else as meat cutters, they would have increased their yearly incomes.

In a great number of these 42 cases, the owners previously kept no records and did not know that their operations were not paying them. Sometimes the loss is caused by some waste which may be stopped when located and sometimes it is caused by too much competition. The thing that each dealer should do is to keep accurate records and

determine whether or not his enterprise is paying him enough to continue it. A store which starts business and stays in it for a few years making no profit, and which finally fails, hurts not only the owner, but has made business less profitable for the other dealers in the neighborhood by temporarily reducing their sales.

This study showed that for the 143 stores, there was an average margin of 22.9% of sales as compared with the total expense of 19.5%, or a net profit of 3.4 cents on each dollar of sales. These figures also mean that out of every dollar of sales received by the retailer, he paid out 77.1 cents for the meat.

In a study put out by Horace Secrist, of Northwestern University, entitled *Expenses, Profits, and Losses in Retail Meat Stores*, it was shown that the cost of doing business becomes substantially lower as the size of the store increases. Stores were classified according to the number of men necessary to operate them, and the average cost of doing business for the different classes of stores was as follows:

Type of Store	Per Cent of Sales
One-man stores .....	25.0
Two-man stores .....	20.0
Three-man stores .....	18.5
Four-man or larger stores.....	16.5

### *Chain Meat Shops*

Although there are some chain stores in the retail meat trade, they have not developed to any great extent as they have in the retail grocery trade. Perhaps the most important reason for this is that in the grocery chains a large part of the saving results from going around the jobber and buying direct from the manufacturers. This is not possible in the meat trade, because there are no independent jobbers to be eliminated. The packers sell direct to the retail trade through their own selling organizations, and there is no way that groups of chain stores can affect a saving by more direct purchase from packing concerns.

Another reason for the smaller number of chain stores in the meat trade is that a meat shop, in order to be successful, requires the careful and conscientious management of the man who owns the shop. A hired manager is likely to be careless in the cutting of meats, the saving of scraps for sausage, and so on. In a chain grocery store it is possible to keep an absolute check on the manager by making him account for every article turned over to him. In the meat trade, this

is hardly possible, because there is no way of telling just how much meat should be cut from a side of beef.

### *Types of Meat Markets<sup>2</sup>*

Types of stores include the neighborhood store and the public market, the cash-and-carry single store, cash-and-carry chain store, and cash-and-carry national chain store. Some of the latter perform a delivery service, but in such cases a separate charge is usually made for delivery. Isolated cases were found where delivery service was included with the price of meats. In such cases customers desiring delivery service paid slightly higher prices. Stores of this type are classified as cash-and-delivery and are only a minor factor in retail meat distribution.

In all cities there had been a marked increase in the number of cash-and-carry meat markets during the last 10 years. Many of these are local chain systems, comprising 3 to 15 units, and a large percentage are individual or single markets whose owners were formerly operators of credit-and-delivery markets. Economies brought about by changes in buying habits of consumers, losses resulting from credit accounts, and greater competition of large retail operators, which practically forced many credit-and-delivery markets to change their methods, were given as reason for the change.

### *Credit-and-Delivery, or Service Stores*

Service stores are usually the type of retail market often referred to as the "corner grocery." The larger number are of the combination type and handle meats, groceries, fruits, and vegetables, but there are many straight meat markets operated almost entirely on the credit-and-delivery basis. They are features in retail meat distribution in practically all Pacific Coast cities but are not prevalent elsewhere.

### *Cash-and-Carry Stores*

There are at least four distinct types of cash-and-carry stores. They are represented by the single or individual meat market, the local chain meat markets, the local chain combination grocery and meat market, and the large, or national, chain store system.

### *Peddler Wagon Routes*

The retail distribution of meats by peddler wagons is of relatively

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<sup>2</sup> From W. C. Davis, *Methods and Practices of Retailing Meat*, United States Department of Agriculture, Bulletin No. 1441, November, 1926.



minor importance and can in no case, among the cities studied, be considered a significant factor even locally. A few such systems are in operation on a limited scale. The routes usually traverse urban sections and cover from 40 to 50 miles a day. In some instances ice is used for refrigeration, but in most cases observed the meats are carried without refrigeration. As a rule, sanitation is poor, and the qualities of meats handled is medium to common. The routes serve laboring people as a rule. Cash transactions prevail, although some credit is extended.

### *Public Markets and Centralized Market Areas*

There are marked evidences that the plan of concentrating retail food markets in limited areas is gaining favor. The success of the cash-and-carry method is commonly assigned as an important influence in this direction. In all such districts studied, the method employed is almost wholly cash-and-carry. The grouping together of the various food distributing agencies, each comprising many units, not only creates wholesome competition, but, because of the added convenience, tends to attract consumers in large numbers.

In the case of public market buildings owned by the corporations in which space is leased to individuals, much depends upon the management and extent of control exercised over stall holders and their operations, and much depends upon the type, character, and ability of the dealers and their relations with the public.

### *The Total Cost of Marketing, from Producer to Consumer<sup>3</sup>*

Figures on this subject have not been worked out with precision for all meat products, but the following excerpt taken from Swift & Company's 1925 *Year Book* breaks up the retail price of beef into the amount going to the retailer, packer's expense and profit, transportation and marketing expenses, and share received by the farmer.

On many perishable fruits and vegetables, the farmer receives only 30% or 40% of the price finally paid by the consumer. What percentage of the retail price of beef does the farmer receive when he sells his steer?

Some people think the farmer gets a very small proportion, because they compare a 10-cent steer with a 50-cent porterhouse. This is not a correct comparison, because other cuts from the same steer bring relatively low prices, and the average price of all cuts is far lower than the retail price of porterhouse.

<sup>3</sup> From L. D. H. Weld, *op. cit.*

The presence of by-products also complicates the question. The steer may be looked on as consisting of two parts: beef and by-products. To compare the farm price with the retail price, we want to know how much the farmer gets for beef alone (exclusive of by-products), and in the figures presented here it is assumed that, since beef was about 82% of the total value of beef and by-products together in 1923, the value of the beef content is likewise 82% of the value of the live animal. Transportation and marketing expenses are split in this same way.

The figures show that the farmer receives for the beef content of his live cattle about 57.8% of the price finally paid by the consumer. This is much more than the farmer gets for most of his products. For example, a recent government bulletin shows that Wisconsin and Minnesota farmers get for their potatoes only 20% to 25% of the final price in Chicago.

Freight, commission, and yardage charges on the beef content of the animal are less than 5% of the retail price. The packer's margin averages 15.5% and the retailer's margin 22%. The packer's margin includes expenses in the packing house, freight on meat to market, icing in transit, operation of selling and delivering organization, and profit. In other words, the packer's margin includes manufacturing costs as well as marketing costs and profit. Manufacturing costs account for over one-third of the packer's margin.

In making this computation, United States Department of Agriculture figures were used for retail margin and Swift & Company's 1923 results were used for the packer's expense and profit. Transportation cost on live animals represents an average from Iowa points to Chicago.

PROPORTION OF THE CONSUMER'S BEEF DOLLAR  
RECEIVED BY THE PRODUCER FOR THE BEEF CONTENT  
OF THE LIVE ANIMAL

Distribution	Amount	Per Cent
Consumer pays for beef.....	\$87.68	100.0
Retailer's expense and profit.....	19.33	22.0
Packer's expense and profit.....	13.55	15.5
Transportation and marketing expense (live animal—beef content).....	4.11	4.7
Farmer receives for beef content of his animal.....	50.69	57.8

*Produce Adaptable to Sale Through Same Channels as Meat Products*

It has already been explained that volume of business and variety of products have been important factors in the development of branch house distribution and direct sale to retailers. It was only natural, then, that the packers should have had the desire to handle such other products as are adaptable to sale through the distributive organi-

zation that had been developed. It was around 1900 that the large packers began in a small way to handle butter, eggs, cheese, and poultry. For the same reason, some of the packers became distributors of canned fruits and vegetables, a business into which they also came naturally through their experience in canning and marketing of meats. Some of them went even farther afield and handled cereals, grape juice and other products.

In 1920 there was issued the so-called "Consent Decree" which prohibited the packers from handling canned fruits and vegetables, and other products ordinarily sold by wholesale grocers. This decree applied only to the five large packers. Smaller packers had not added these other lines to any extent because, since they do not have branch house organizations, they have not found it so necessary to strive for volume, in order to keep down selling expenses.

It is in the handling of butter, eggs, cheese, and poultry that the packers have affected the greatest development in the handling of other products than meats.

### THE MARKETING OF BY-PRODUCTS

In addition to meat products, the packing industry produces a large number of by-products which are marketed in various stages of manufacture. Obviously, these by-products cannot be sold by the same salesmen or to the same class of users who purchase meat products. Consequently, different methods have to be used in marketing these products.

#### *How By-Products are Marketed by Small Packers*

Small packing companies without facilities for the complete manufacture of by-products market them in the raw state. Such products as tallow, greases, oleo oil, stearine, and hides are accumulated and marketed by the small packing companies through brokers. There are a large number of brokers specializing in packinghouse by-products. These brokers in turn find purchasers for raw by-products in industries which must use them as raw material. For example, tallows and greases are sold to soap manufacturers, oleo oil and oleo stock are sold to manufacturers of oleomargarine, and hides are sold to tanners. Fertilizer materials, bone, and similar products are likewise sold either to large purchasers direct or are sold through brokers to these companies.



*How By-Products Are Marketed by the Large Packers*

In the case of the large packers, where the volume of by-product raw materials is very large, the companies have followed the policy of manufacturing a certain amount of these into finished products and of marketing them through special sales departments. The remainder is sold through the trade channels mentioned above. Practically all the large companies, for example, manufacture glue from hide trimmings and bones, oleomargarine from oléo stock, lard compounds from oleo stearine combined with vegetable oils, and animal feed, fertilizer, and soaps from other by-product materials. In one or two instances the companies go one step further in manufacturing pharmaceutical goods, strings for musical instruments, gelatine, and other finished by-products which require more complete manufacture. The marketing methods used by a typical large packer are explained in the following quotation from Swift & Company's 1923 *Year Book*, entitled "How We Market Our Various Products":

Now we come to our other products. Take hides, for example. These cannot be sold through our regular sales outlet, because retail meat dealers have no use for them. After we have salted them down and cured them, we have to get them into the hands of tanners so that they can be made into leather. Different tanners make different kinds of leather, and therefore each tanner wants a certain grade or quality of hides. So we sort the hides into several different grades and weights to meet the requirements of tanners, both large and small. Large tanners usually have their own buyers to whom we sell direct, whereas small tanners occasionally employ brokers to do their buying for them. We have to maintain a special sales organization to take care of this business.

Fertilizer is a problem in itself. It cannot be sold to tanners; retail meat shops and grocers do not handle it. We have to get this product into the hands of farmers, and they buy it mostly in the spring.

We found that the best way to reach farmers was through their local dealers in country towns, to whom we sell direct. Some of these local dealers are general stores; others are feed dealers. In some cases, in the South, we sell through cotton warehouses; in the grain section, through country elevators—any channel that gets the fertilizer into the hands of farmers at the lowest cost and at the time they want it. We naturally have to keep specialists busy on this complicated sales problem.

Animal and poultry feeds, made from meat residues, blood, and bone, are by-products specially prepared for feeding live stock and poultry. They are rich in protein and mineral matter and very valuable in helping the feeder make up balanced rations at lowest cost.

The bulk of these feeds is sold to retail feed dealers and consumers,



but a considerable tonnage goes direct to millers and mixers of nationally advertised brands of commercial mixed feeds.

Glue is another product which has to be sold to manufacturers. Some people might think that the principal way to market glue is in little bottles through drug, hardware, and stationery stores; but the quantity sold in this way is insignificant. The principal users of glue are manufacturers of matches, gummed tape, paper in various forms, such as wall paper, paper boxes, and sand paper, and furniture manufacturers. Indeed, practically every industry uses glue to a certain extent. Glue, which is made out of bones and scraps of hides, is of different qualities, and manufacturers wanting different grades buy it "on test." Since glue is bought in fairly large quantities, we sell direct to the manufacturers who use it.

Practically all our wool goes direct to woolen manufacturers. Our salesmen call upon them, carrying samples of the different grades, of which there is a very large number. This careful assortment of wools is necessary because, as in many other industries, woolen manufacturers specialize on certain fabrics and require only certain grades of wool. For example, manufacturers of high-grade flannels, women's dress goods, and fine goods for men's wear, and the higher grades of blankets take the finer grades of wool. On the other hand, coarse wools go into the manufacture of certain overcoating materials, low-grade blankets, and carpets. Between these finest and coarsest wools there are many medium grades.

So our wool is sold entirely by sample, except in the case of those manufacturers who have used some of our standard grades in previous years and now buy without seeing the sample.

## LIV

### SUGAR

#### *Size and Importance of the Industry<sup>1</sup>*

THE refining of sugar is an industry of great magnitude and importance. In the case of beet sugar it is essential that all impurities should be removed before the sugar is suitable for human food, and in the United States the extraction of sugar from the beets and its purification are always carried on in the same establishment. All beet sugar factories are therefore also refineries. In Europe, however, much of the beet sugar is marketed raw and refined in separate establishments. Cane sugar is palatable when unrefined and for some purposes is preferred. A certain amount of "brown sugar" always finds its way into household use, but the quantity so consumed is relatively insignificant. Moreover, unlike beet sugar, the process of refining and that of manufacture are not usually carried on in the same establishment. A considerable portion of the Louisiana output is marketed direct from the factory in a refined or semirefined state, and a factory in Hawaii refines sugar for domestic use. But the great mass of the sugar received from Cuba, Hawaii, Porto Rico, Louisiana, and the Philippines is purchased by some 18 refineries located along the Atlantic, Pacific, and Gulf coasts, in a raw state, testing about 96 degrees centrifugal, and is then refined. As comparatively little unrefined sugar reaches the ultimate consumer, the magnitude of the refining industry can be estimated from the quantity of raw sugar received—approximately 4,500,000 tons per annum.

#### *Geographical Distribution*

The supply of raw sugar for the refineries comes from Louisiana, Cuba, Porto Rico, from the Hawaiian, Philippine, and Virgin islands, and, to a small extent, from other sources. As all these sources of supply, except Louisiana, involve ocean transportation, the location of refineries is thereby determined at points accessible to navigation. The

<sup>1</sup> From "Refined Sugar, Costs, Prices, and Profits," *Tariff Information Series* No. 16, 1920.

refineries are found along the Atlantic and Pacific coasts, and in Louisiana and Texas.

*The Refinery in the United States<sup>2</sup>*

*Basis of Purchase.* Raw sugar is purchased on the basis of 96° test, which is the commercial standard. A certain allowance per pound for each degree above, and a certain deduction per pound for each degree below, 96° is made. It is bought on terms of cost and freight, cost, insurance and freight, and f.o.b. the shipping port. In the latter case, the seller delivers the raw sugar on the wharf within reach of the steamship's tackle without further expense to him beyond this point.

*Import Duty.* The United States Tariff Act, enacted September, 1922, prescribes an import rate of 2.206 cents per pound on full-duty raw sugars of 96° test, with an addition or deduction of .046 cent per pound for each degree over or under this test. Under the existing Reciprocity Treaty between the United States and Cuba, raw sugars from the latter country enter the United States at a preferential rate of 20% less than the full duty.

*Discharging the Sugar Cargo.* While the sugar cargo is being discharged, the government, the buyer, and the seller are all represented on the dock. A representative for each takes a sample from every bag as soon as it is landed on the wharf, the buyer and the seller alternating. The government representative places his samples in separate tins and sends them to the Appraisers' Stores Laboratory for testing. The buyer and the seller jointly use other tins, large enough to hold samples from approximately 150 bags. The contents of these tins are mixed twice daily and three samples are taken therefrom and distributed to the buyer's chemist, the seller's chemist, and to the New York Sugar Trade Laboratory, respectively; the average of the closest tests is the final purity basis on which settlement is made between the buyer and the seller.

The sugar is weighed first by the government representative on electric automatic platform scales, and immediately thereafter, at the expense of the seller, by the merchants' or private weigher who, as a rule, uses either the platform or beam scales. The weights obtained by the latter determine the quantity of sugar purchased by the refiner.

As, in this country, there are no separate establishments for refining beet sugar, the distribution of beet sugar refineries may be said to be

<sup>2</sup> From Philip Keep Reynolds, *The Story of Cuban Sugar*, The United Fruit Company, Boston, 1924.

identical with that of beet sugar factories. The industry centers in California, Colorado, Utah, Idaho, and Michigan.

Sugar cane requires at least a twelve months' growing season and an absence of frost in the ground. The sugar beet can be matured in half that time, and as it is raised from seed each year, the frost does not effect it. The cultivation of cane is therefore confined to tropical or semitropical localities while beets can be grown in the temperate zone.

#### *The Difference Between Beet and Cane Sugars<sup>4</sup>*

The sucrose content of both beet and cane sugar is transformed at the factory into identically the same substance—sugar. Chemically pure sugar made from either beet or cane analyse exactly the same. Dr. H. C. P. Geerligs, an international authority on sugar, has this to say of the two:

The largest constituent of the two sugars is the same, namely, the sucrose, which is the identical chemical body both in cane and in beet sugar; the difference, if there be any, must be found in the very small amount of impurities in or around the crystals.

Every cane juice contains glucose; sound beet juice, on the contrary, does not contain any glucose. This is the main difference between the two; all the other bodies, as gums, mineral matter, and so forth, are found in both.

In the great majority of cases, this small admixture of glucose is perfectly harmless; except in some cases for confectionery, glucose present will not cause any trouble.

The very best cane sugar will always contain a very small amount of glucose, while granulated pure beet sugar is free from glucose.

#### *Harvesting Cane*

The usual harvesting operations are stripping the leaves from the stalk, topping the cane, cutting it at the ground, and hauling to the station or factory. The time required for these operations will vary with the yield, condition of cane, and the weather.

#### *Distribution of Sugar<sup>5</sup>*

The product of the beet sugar factories is all granulated sugar ready for table use. The factories located in the West pack their product in bags containing 100 pounds each. Some of the sugar produced in the eastern factories is packed in this manner, but most of it is packed in

<sup>4</sup> From Allen Ray Kahn, *Sugar, a Popular Treatise*, U. S. Sugar Publications Company, Los Angeles, 1921.

<sup>5</sup> From *Report of the Federal Trade Commission on the Beet Sugar Industry in the United States*, May 24, 1917.



barrels which contain about 340 pounds each. Some is also sold in bales, a bale containing four 25-pound bags packed in this manner for the convenience of the trade. Practically all the product is sold through jobbers, a small quantity being sold directly to the beet growers for their own use. One or two companies also dispose of their product to nearby cane refineries.

Small companies can usually dispose of their product either locally or in nearby states, but the largest companies must of necessity find markets in various States. The companies in Utah, Idaho, and Colorado are forced to invade the eastern markets, since their production far exceeds the home demand and because California produces large quantities of both beet and cane sugar and largely supplies the Pacific Coast markets. The Great Western Sugar Company, in 1913, for example, sold sugar in 33 different states. Of course the bulk of their product was sold in the central western states, but small quantities were sold even as far east as Vermont, New York, New Jersey, and Virginia. Only small quantities are sold in the Southern States for the reason that the Louisiana cane refineries have the advantage of lower freight rates.

#### *Freight Charges*

The freight on sugar, which is the largest item of selling expense, is usually prepaid by the company. Freight is also paid on the containers, the weight of a bag being considered as one pound and that of a barrel as 16 pounds. Naturally, the average freight per 100 pounds of sugar is higher for larger companies, since the larger proportion of their product is sold in more distant markets and consequently on higher freight rates. Also, companies in the East enjoy some advantage over companies whose factories are located in the West, due to their nearness to the great consuming centers. In 1913-14 the highest average freight charge for any eastern company was \$.1842 a bag. The average for the four largest western companies was \$.3672 a bag.

#### *Other Expenses*

The average brokerage paid is about 3 cents a 100 pounds. The usual charge paid brokers is 3 cents a bag, 5 cents a bale, or 10 cents a barrel. Some companies pay an additional 5% since the broker in these cases assumed the responsibility to the customer and in some instances advanced money to the company before the sugar was sold.

In 1909 and 1910, the regular cash discount was 1%. Since then, the usual discount has been 2% for cash in seven days. Two companies

in 1909 and 1910 sold their sugar net. Practically all sugar is sold on a cash basis, and the losses from bad debts are practically nothing.

Storage and insurance are charges on unsold sugar which has been shipped to distributing points. A dealer, for example, at some central point may buy less than a carload. The company ships a car to him in order to save freight charges and some time may elapse before the remainder of the car is sold. The dealer buying the remainder of the car pays the freight from the distributing point. Insurance on sugar in their own warehouses, however, is included with the insurance of factory buildings and so forth, and therefore included in factory costs.

### *When Beet Sugar Is Sold*

Although practically all beet sugar is made between August 1 and January 1, it is placed on the market throughout the greater part of the year. The charge for allowances arises from the fact that the price to the wholesaler is guaranteed. That is to say, when the manufacturer makes a sale, he guarantees the wholesaler or jobber against a decline in price. When sugar was sold it was billed at the market price on the day of sale, but the manufacturer guaranteed the wholesaler or jobber that in final settlement the price should not exceed the market at the time of delivery. Thus, if a quantity of sugar was sold on a day when the price was, say, \$5 a 100 pounds, but when delivered, say 10 or 20 days hence, the market was then \$4.80 a 100 pounds, the wholesaler was allowed the difference. On the other hand, if the market advanced to say, \$5.10 a 100 pounds, the wholesaler still got his sugar at \$5. In other words, the manufacturer guaranteed the wholesaler or jobber against loss on a declining market, but did not receive the reciprocal advantage of an advanced price upon a rising market.

While it was formerly the custom among cane sugar refiners to guarantee the price against decline, this has not been the case for some years. A large refiner states that the cane sugar refiners abandoned this custom because the margin between the price of raw and refined sugars has been so reduced that there was nothing left as an insurance against the risk taken in guaranteeing against decline.

### *Marketing*<sup>6</sup>

(1) The sugar product of the refineries is sold to the confectionery and other manufacturing trades and to wholesale grocers and jobbers, either directly or through brokers, for domestic use, or through brokers

<sup>6</sup> (1) From Philip Keep Reynolds, *op. cit.*; (2) from George Morrison Rolph, *Something About Sugar*, J. J. Newbegin, San Francisco, 1917.

for export. The wholesale grocers and jobbers sell to the retail trade, which in turn supplies the individual consumer.

The filtered syrups and blackstraps are sold, either directly or through brokers, to blenders, exporters, and jobbers. The syrups are sold on the basis of their color, clarity, and chemical analysis and are used for human consumption. The blackstrap is used for the same purposes as the final molasses of a raw sugar factory; that is, it is either distilled into alcohol or used as feed for live stock.

(2) The selling of sugar by the refiner direct to the consumer has not been found practicable, as an organization complete enough to keep in touch with consumers in every city, town, and village of the country would be so top-heavy and costly to maintain that the price of the commodity to the consumer would be needlessly increased.

Sugar is sold by the refiner to the wholesale grocer through the medium of the refiner's broker. From the wholesaler it goes to the retailer, who in turn delivers it to the consumer.

Brokers are important factors in distribution. In every large city and consuming center, each refinery is represented by its own brokers, who keep in constant touch with all the wholesale grocers and manufacturers of their district.

Every refinery having its own broker in each consuming center, it follows that the competition for business among the brokers is very keen. When a broker obtains an order from a jobber or manufacturer, he telegraphs it to his principal. The order is usually confirmed and the goods shipped promptly. For his services the broker receives 3 cents for every 100 pounds of sugar sold. This compensates him for the services of his salesman and himself, his office expenses and cost of telegrams, which is heavy.

Manufacturers of foodstuffs of which sugar is an ingredient buy their supplies through brokers. They do not resell the sugar as such, but use it only in the manufacture of their own special product.

Wholesale grocery jobbers, of whom there are about 2,500 in the United States, are also very important factors in the distribution of sugar. As a rule, they are located in the large centers of population and have efficient organizations for the purchase and resale of all kinds of foodstuffs. They deal in as many as 3,000 different commodities, and their expense of doing business is apportioned over all these items, thus reducing to a minimum the expense of handling any one of them. Generally speaking, they have large establishments where stocks of all kinds of goods are carried ready for immediate distribution. The aggre-



gate capital tied up in these stocks throughout the country is enormous, but necessary, as the jobber must at all time be ready to deliver to the retailer whatever is wanted in any of his lines. Wholesale jobbers occupy a unique position in the scheme of things. They are to the commerce of the country what the bankers are to its finances. In other words, they are the bankers of commodities. Their operating staff consists, first, of the buyers, and, second, of the salesmen.

The buyers are men possessing special knowledge concerning the various articles handled by the house. For instance, in the grocery line one will buy nothing but teas and coffees, another canned goods, another sugar, and so on. These men as a rule have devoted years to the study of the particular commodity which they are delegated to buy. They are shrewd, keenly alert, and always ready to take advantage of market fluctuations in their favor. The margin of profit between the buying and selling price of any commodity is usually so small that the acumen of the buyer is an important factor in the final results.

Sugar more than any other staple article is used as a leader, and, as a result, the retail grocer's profit on it is very small. What remains to him out of the selling price of 100 pounds of sugar does not exceed 35 cents, and more than likely it has cost him 25 cents to sell it.

### *Tariff History*<sup>7</sup>

In the United States refined sugar has always been subject to a higher duty than raw sugar, thus affording it a net protection. In early acts, various terms were used to designate the higher-grade sugars, such as white, clayed, or powdered sugar, and refined, loaf, lump, crushed, or pulverized, and the trade name of the sugar determined the rate of duty. An attempt at a more scientific classification was made in the Act of August 5, 1861, by the introduction of the Dutch standard, in accordance with which the different grades were judged by color, the darker the color, the lower the grade.

One of the most important acts in connection with the tariff history of sugar was the Cuban Reciprocity Act of December 17, 1903, in accordance with which all imports from Cuba, including sugar, were given a preferential rate of 20% discount from the full duty. This preference was sufficient, after a period of five or six years, to cause imports of sugar from Java, Germany, and other sources of supply,

<sup>7</sup> From "Refined Sugar, Cost, Prices, and Profits," *Tariff Information Series*, No. 16, 1920.



which previously had been considerable, almost to disappear. Cuba is now, under normal conditions, the only foreign country from which imports of appreciable magnitude are received.

Another matter deserving mention in connection with the tariff history of sugar is the treatment accorded the Philippine Islands. By the Act of March 8, 1902, all imports from the Philippines (including sugar) were given a rate equal to three-fourths of the full duty. By the Act of August 5, 1909, sugar not to exceed 300,000 gross tons was admitted free, the excess paying the three-fourths rate. As in no year since 1909 have the imports of sugar from the Philippines reached 300,000 tons, the act virtually amounted to placing Philippine sugar on the free list. By the Act of October 3, 1913, even the 300,000 ton limit was removed, and Philippine sugar to any amount was admitted free.

#### *The New York Sugar Exchange*<sup>8</sup>

All sugar contracts made on the exchange are in units of 50 long tons. Delivery is made from bonded warehouses located in the Port of New York and holding licenses issued by the exchange. Under the rules of the exchange, the minimum change permitted in price quotations is one-hundredth of a cent a pound, equivalent to \$11.20 per contract of 50 long tons.

The exchange serves an economic purpose in affording a public market place for the purchase and sale of raw sugar and coffee. Interest in the raw sugar futures market is growing steadily as the facilities of the market become more generally known and their economic value better understood. The New York Coffee and Sugar Exchange provides the only sugar futures market in the world where transactions in large volume are possible. There are markets in London and Paris, but the business transacted is of limited volume.

#### CUBA CURTAILS PRODUCTION<sup>9</sup>

Cuba expanded her production during the World War to make up for the deficit in world supplies resulting from the collapse of Europe's sugar industry. Since 1919, however, the European industry has been recovering steadily, so that last year the production of the Continent was within 1,000,000 tons of the pre-war year.

<sup>8</sup> From *Sugar, a Basic Industry*, W. A. Harrison and Company, New York, 1924.

<sup>1</sup> From "Sugar," *The Index*, June, 1926, p. 7.

Meanwhile, the high rate of Cuban production was maintained, and estimates for the 1925-26 crop indicated a record output. This would have made it necessary for Cuba to find a market for a larger quantity of sugar than had existed the previous year.

Sugar necessarily was being sold below the cost of production, and to avoid a general business depression, the Cuban Government passed a curtailment law which went into effect May 9, 1926. Production of the current crop was limited to 90% of estimate, the figure being determined by an average of the three leading statistical authorities. The actual yield will be approximately 4,900,000 tons, whereas a production of 5,330,000 tons would have been on the market, had the curtailment measure not been passed.

## LV

### SOAP<sup>1</sup>

SOAPS have so many uses which are well known that it may be superfluous to attempt to give all the different uses to which they are applied. However, these uses may be divided into several general classes, as soaps for domestic and laundry purposes; soaps for toilet purposes, used for bathing, shaving, and skin treatments; soaps for manufacture or technical purposes; and soaps for dyeing, for fulling, wool-washing, and lithographic colors.

This paper contains a discussion of the problems of marketing to families soaps of staple grades of the first two classes mentioned in the preceding paragraph; namely, soaps for laundry and toilet purposes. These grades are well represented by three different brands known as Fels Naptha, used only as a laundry soap; Ivory, used both as a laundry and as a toilet soap; and Palmolive, used only as a toilet soap.

It is generally agreed that soap is universally used; that each person uses practically the same amount every year; that it is bought frequently in small amounts; that it is one of the most indispensable of staple articles; and that the total consumption of soap cannot therefore by any market strategy be increased to any marked degree. Consequently, it is the task of the market manager to make his company prosper at the expense of the other soap companies by giving a soap better adapted to the uses for which it is supplied and by increasing the service with the product.

#### *Buying Habits of the Consumer*

Until recently, laundry soap was usually bought at the nearest grocery store where the family groceries were purchased. Various external forces have brought about changes in this habit until at present the reverse of the above statement is generally true. Very often the groceries are bought where the laundry soap is purchased. The dealers are continually running special sales on soap as leaders when it is sold

<sup>1</sup> From James Draper Craig, *Marketing Soap*, thesis, Department of Commerce and Administration, University of Chicago, 1923.

considerably below cost—almost below the manufacturer's cost. The consumers buy a large quantity of their soap from these sales and always go to the store where the sale is on if it is within a reasonable distance. These same stores carry the nationally advertised toilet soaps on which similar sales are run. The large national advertising campaigns have been a big factor in bringing about these modifications in buying habits. These campaigns have also secured distribution for toilet soap in the grocery store as well as in the department store. Many of the department stores also carry laundry soaps and are continually running special sales on them as well as on toilet soaps. The manufacturer's national advertising is being used by the dealer to good advantage, as special low prices on these nationally advertised brands are very effective in drawing many new customers into his store, who buy many other commodities. The chain store competition has also played an important part in bringing about these various changes in the market.

The rural market does not seem to be in such an unsettled condition as the city market. The obvious causes are probably that the chain store competition there is not so keen and the farmer's wife is not reached to the same degree as the city housewife with the manufacturer's advertising. Also the farmer is accustomed to go to the store once a week and make all purchases at one time. The *Farm Journal's* market survey showed that the great majority of the farmers purchased their soap in the nearest grocery store or general merchandise store. Following are the results obtained:

"Where do the farmers buy their soap?"

Grocery store.....	51.0%
General merchandise store.....	39.0%
Department store .....	6.0%
Mail order .....	1.0%
Others .....	3.0%

"How far do farmers travel to reach store?"

Under 3 miles.....	50.5%
Between 3 and 5 miles.....	27.1%
Between 5 and 10 miles.....	27.9%
Between 10 and 25 miles.....	4.5%



## CHANNELS OF DISTRIBUTION

Soaps in traveling from the manufacturer to the consumer follow various routes. The most important and by far the most widely used route is the manufacturer-jobber-retailer-consumer route. At the present writing, some companies are attempting to sell direct to the retailer. A very small quantity goes direct from the manufacturer to the consumer. Variations in the kinds of jobber and dealer outlets exist; however, the general route is the same in most cases. Toilet soap is distributed through retail drug stores, grocery stores, and department stores. Laundry soap is practically all distributed through the retail grocer, a very small portion being distributed through department stores and drug stores.

Distribution has never been standardized in detail and few of its practices have been reduced to rule. Except in a small minority of cases, even with many facts known about the consumer, the market, and the product, it is impossible to say with exactness which method of distribution should be followed in order to insure a desired result. The methods used by three of the largest manufacturers in the distribution of soap will be discussed in detail. These methods are considered to be representative of the manner in which practically all soap is distributed.

*Method Used by Fels and Company*

Fels and Company distribute their entire output of soap through the wholesaler-retailer-consumer route. They have established branch sales offices in some of the larger cities, such as Boston, New York, Atlanta, Cleveland, Chicago, and St. Louis. The district sales manager in each city has a force of salesmen under his direction. These salesmen visit the wholesale grocers in the entire territory of which that city happens to be the center. Each salesman's territory is of a size that will enable him to cover it in from two to three months. His orders are turned in to the district manager, who forwards them to the Philadelphia plant for shipment, or, in case of small orders, shipment is made from the nearest warehouse.

The salesmen call on many of the large retailers simply because the wholesale grocers' salesmen will ask the question "How much yellow laundry and what kind?" while the company's own salesman will ask "How much Fels Naptha?" The company's salesmen also call on the wholesaler who supplies these same retailers, to get his order in car

lots. The orders for Fels Naptha secured from the retailers are turned over to the wholesaler, who then will generally increase the order which he has just given. The writer only a short time ago had the opportunity to talk with a Fels salesman, as he came out of a wholesale grocer's office in Peoria, who had received an increase from 800 boxes to 4,800 after turning over to the wholesaler his share of the retailers' orders for Fels Naptha. These extra two and one-half carloads of soap would have been sold in Peoria, but many other grades of white and yellow laundry soaps would have made up the sales and not Fels Naptha exclusively.

The Fels salesmen do not call on all the retail grocers as do the salesmen of some of the other large companies. They visit only the larger retailers in the larger cities where their wholesalers are located. The smaller retailers and those in smaller cities are left exclusively for the salesmen of the wholesale grocers.

This method of distributing is representative of most of the large soap manufacturers with some few modifications. Some of the companies do not visit the retailers at all, their entire selling force being concentrated on the wholesaler.

#### *Attempt by Procter and Gamble to Distribute Direct to the Dealer*

For a long time, Procter and Gamble were content to let the wholesale grocer handle their many different brands of soap. The method of distribution differed very little from the one now used by Fels, outlined above. They did not visit the retail trade to nearly so great an extent as Fels now do and, as there were not so many big chain systems of retail grocery stores, they let the wholesale grocer handle all their soap. Things moved along smoothly in this manner and all Procter and Gamble soaps were good sellers. But about 1917 Mr. Procter, Mr. Deupree, general sales manager, and some of the other directors who were heavy stockholders thought they could increase the sales and at the same time increase the net profit on the sales by distributing it themselves direct to retail grocers. Their reasons for making such a change were as follows:

1. The dealers were not, as a general thing, pushing their products any more than any others;
2. Closer contact could be had with their market, thus enabling them to give more and better service to the retailers;
3. The product could be distributed more cheaply; the net

cost to the retailer would be a little less than half a cent a cake less than when it was bought from the wholesaler;

4. They would be the first to take such a step in the soap business, the first manufacturer to attempt to go around the wholesaler to reach their market.

A new company was then organized and incorporated as the Procter and Gamble Distributing Company, all the common stock being owned by the Procter and Gamble Company. Branches were established in about 25 of the larger cities, with warehouses and local delivery equipment sufficiently large to give service as good as the wholesaler had been giving. The former branch sales offices were transferred to the distributing company. The sales force had to be increased slightly but not so much as would at first be thought necessary, as the retailer did not have to be visited nearly so often. The principal change with respect to salesmen was to force them to cover their territory more thoroughly. Heretofore, the salesman had been following the line of least resistance. It was now a question of calling on every grocery store in the United States. Some were visited only twice a year (those in sparsely populated areas), some four times a year, some six times, the greater portion of them twelve times, some twenty-six times, and some few of the large ones in the large cities were called on every week. It was also necessary to change the advertising policy from that of local dealer aids to one of a broader policy of institutionalizing the firm of Procter and Gamble in addition to the local aids to help the retailer.

The method of direct distribution was not successful. Several reasons for the failure may be suggested. The retailer had learned that more profits resulted from quick turnovers and consequently he would not buy enough of one brand of soap to carry him two and in many cases three months when he used to buy enough of other brands to last one month. Very often the Procter and Gamble salesman would reach him a day or two after the wholesaler's man had been there and sold him other brands up to his capacity. The result was that very often he would not buy any at all and if he did, he would not buy a quantity equal to what he should sell in three months. Moreover, the company could not extend the same credit to these little outlying fellows that the wholesaler could. It was a very broad field for one concern to attempt to cover with a "convenience article" such as soap. A very large selling force was necessary to cover the field as often as



the wholesale grocer covered it, and one article was not sufficient. It is very rare that grocery salesmen make a call without making a sale. If the retailer does not need soap, he does possibly want sugar, canned goods, or teas and coffees, but when the salesman has only soap to offer he does not make a sale on every call, although the cost for that call was the same, sale or no sale.

The wholesalers did not give up without a struggle, either. Proctor and Gamble soaps had been good sellers and had netted fair profits. Now, unless the Proctor and Gamble sales were replaced with sales of other brands, their profits would be cut accordingly. Hence, although they had not previously been pushing any particular soap, they started to push the sales of some other brands to the retailer, all of which meant stiffer competition for Proctor and Gamble soap.

The present policy is for the company to deliver direct to the large retailers in the cities where they have their warehouses and permit the wholesaler to look after the others. In the city of Chicago, the company delivers all orders of 100 cases or over. When the salesmen get orders for less than 100 cases, they are turned over to one of the wholesale grocers. With their large national advertising campaigns and their improved service in delivery and taking back unsalable goods, the wholesalers are gradually being won over and are now cooperating fairly well.

#### *Method Used by Palmolive Company*

The Palmolive Company's method of distribution differs from those of the two preceding companies in that it uses two different types of retail merchants, the grocery store and the drug store. The grocery stores, almost all of which now handle the regular Palmolive brands of toilet soap, buy their stocks from the wholesale jobbers of toilet goods.

The Palmolive Company has established branch sales offices in about 40 of the principal large cities, from which they have a number of salesmen working the retail merchants. The salesmen calling on the grocery trade turn their orders over to the wholesale grocers. The salesmen calling on the drug stores turn their orders over to the wholesale jobber of toilet articles, usually the wholesale drug houses. The quantity of soap sold by the company's salesmen does not nearly equal that sold by the salesmen of the wholesale merchants, but the company thinks if their own salesmen did not call on the retail merchants, they would not specify Palmolive necessarily when the wholesale merchant's salesman called on them. The branch manager in the city sells the



wholesale merchants and in some cases the buyers of the chain store systems.

In summing up the three methods followed by the soap manufacturers in getting their soap into the hands of the consumer, the distinctions are as follows: Laundry soap is distributed almost entirely through the grocery store trade, a very small quantity going through the department store, but it may go either through the hands of the wholesaler to reach the retailer or it may go direct from the manufacturer to the retailer. Toilet soap is practically all handled by the wholesale merchant, but is distributed to the consumer by retail grocery stores, drug stores, and department stores to some extent.

### *Conclusions*

There has been an increasing tendency during the last 75 years for soap manufacture to be shifted from the home to the factory. Factory production has become increasingly concentrated into a relatively small number of large factories.

Soap in general is a combination of the alkali metal with the more common fatty acids. Manufacturing in large plants with carefully chosen equipment has resulted in part from the need for expert chemical supervision. In order to utilize all the various grades of raw materials necessarily purchased together and in order to provide the different kinds of detergents desirable for different uses, the large soap factory usually finds it advantageous to produce a number of different kinds and qualities of soaps. Consequently, soaps are usually sold as families of products.

Marketing demands and competitive strategy require that much attention be paid to various physical properties of soap which have little or no influence on its cleansing efficiency. The most important of these characteristics are size, shape, and color of the bar and the convenience and attractiveness of the package used.

With the possible exception of a few small classes of people, everyone uses soap for both toilet and laundry purposes. Such statistics as are available indicate, but do not prove, that per capita consumption remains constant. Sales executives of soap companies commonly work on the assumption that the amount of soap consumed per person cannot be materially increased. Therefore each sales executive considers his potential market to lie largely in the increase of population and the present market of his competitors.

Consumers buy frequently and in small quantities, and each indi-

vidual user selects to a large extent his or her favorite kind of soap. Beyond these facts very little is known with any certainty as regards the strength of the consumer's preference or as regards the buying habits in general.

Market strategy directed largely at a competitive market has practically used all the common strategic methods known to manufacturers of household supplies. Most of them have been used by many different manufacturers and have become common and well understood by competitors. As a result, the effect of these devices has been greatly weakened. It seems as if competitive methods have been about exhausted in this field and there seems to be a rather general "stalemate."

The customary route through which soap travels in going from producer to consumer is the manufacturer-jobber-retailer-consumer route. In general, radical departures from this route have met with failure.

## LVI

### MANUFACTURED TOBACCO PRODUCTS

CIGARETTES, smoking and chewing tobacco products are consumed in all parts of the country. The products, though fairly durable, must be sold to the consumer in very small quantities when and where he wants them, and still must never be more than four to six months old.<sup>1</sup>

The problem of marketing, then, is to place fresh products into the hands of smokers all over the country in quantities worth from five to twenty-five cents per unit.<sup>2</sup>

#### *The Manufacture of Tobacco Products*<sup>3</sup>

The bulk of cigars are made by hand. Among the equipment used are hand knives, wood blocks, benches, suction benches, mechanical leaf counters, presses, stripping machines, and in not a few of the larger factories, cigar making machines, which have been introduced in recent years with good results.

Boxes in which cigars are packed are made of many kinds of woods, cedar predominating. Labels, bands, and lithographs are used in enormous quantities. The most popular form of packing is in boxes of 25, 50, and 100.

Licorice and chocolate are among the ingredients used in the manufacture of cigarettes, smoking and chewing tobaccos. Equipment includes cutting machines, cigarette making machines, wrapping and packaging machines, grinding machines, and presses. Most cigarette making operations are automatic. Tin, paper, and foil containers are used and, in addition, glass containers for smoking tobacco.

The tobacco grower sells his product to a packer, who sorts it according to grade and packs it, using bales, cases, and hogsheads. The packer in turn supplies the manufacturer.

<sup>1</sup> N. Levin, term paper, "The Marketing of Tobacco Products," School of Commerce and Administration, University of Chicago, August, 1925.

<sup>2</sup> Report of the Commissioner of Corporations on the Tobacco Industry, Part 1, February 25, 1909.

<sup>3</sup> *Craigs' Market Data Book and Directory*, 1924.

The great bulk of all manufactured tobacco is disposed of to jobbers, who in turn supply the retailer. There are approximately 5,000 exclusive cigar and tobacco jobbers, while cigars and tobacco are also handled by grocery and drug jobbers. About 550,000 retail establishments, including cigar stores, drug stores, stationery stores, hotels, and so forth, handle tobacco. Tobacco and its products are a universal "side line" for retailers.

A considerable impetus was given to cigarette sales in recent years through the increasing number of women who smoke. One estimate is that women spent about \$21,000,000 for cigarettes in the United States in 1923.

The manufacture of smoking tobacco is somewhat more widely distributed than that of plug. Nine states—North Carolina, Ohio, New Jersey, Maryland, Michigan, Illinois, Virginia, Kentucky, and New York—produced each more than 10,000,000 pounds in 1906, ranking in importance in the order named. North Carolina produced more than 33,000,000 pounds, or over one-sixth of the total for the country. Much the larger part of this was made at Durham in the factories of the American Tobacco Company and its subsidiary, the Blackwell's Durham Tobacco Company.

Although snuff is chiefly made from the cheap dark-tobacco leaf produced in western Kentucky and Tennessee, the manufacture of it is mainly conducted in a very few large plants in places considerably distant from that territory. The largest producers of snuff, in the order named, are Yorklyn, Delaware, Helmetta, New Jersey, Nashville, Baltimore, and Chicago, which together make about 90% of the output of the country.

On account of the extensive use of machinery in the production of cigarettes from domestic tobacco, the output of such cigarettes is chiefly from a few large factories. The number of factories making Turkish cigarettes is much greater, but a comparative few of them have the larger part of the output. In 1906, 42% of all the paper cigarettes produced in the United States was made in New York City. The facts that this is the principal port of entry for Turkish tobacco, that a large number of foreign work people accustomed to the manufacture of such cigarettes reside in New York, and that the consumption of Turkish cigarettes in the city and vicinity is exceedingly great have led to concentration of the greater part of the production of Turkish cigarettes in New York. The city next in the production of cigarettes is Durham, North Carolina, where the Brit-



ish-American Tobacco Company manufactures them from domestic leaf for export, using the leaf grown in the immediate vicinity. Richmond ranks next as a producer of cigarettes. The output of these three cities together is practically 90% of the total for the country. There is also a considerable production of cheap cigarettes in New Orleans and in Wilson, North Carolina.

The production of little cigars, which are made chiefly in a few large factories and by machine methods, is mainly confined to New York, Baltimore, Richmond, Philadelphia, and Danville, Lynchburg, and Newport News, Virginia.

The production of cigars is much more widely distributed than that of any other class of tobacco products. However, two states—Pennsylvania and New York—produced in 1906 only a little less than half the total output.

### *Foreign Trade*

The fact that the United States is the greatest producer of leaf tobacco in the world, combined with the relatively high duties on manufactured tobacco products, brings it about that there is practically no importation of tobacco manufactures into the United States except that of high-grade cigars from Cuba.

The existence of government monopolies of tobacco manufacture in a number of the leading foreign countries and of prohibitive tariffs on the importation of manufactured tobacco products in other countries prevents any considerable development in international trade in such products. The exports of manufactures from the United States are comparatively insignificant, although somewhat exceeding the imports in value. Practically one-third of the entire number of cigarettes produced in the country are exported. The exports of cigars are altogether insignificant. The cigarette exports are steadily increasing.

Germany is by all odds the most important importer of tobacco. The United Kingdom stands next to Germany as an importer.

### *Conditions Conducive to Combination in the Industry*

The first large combination of capital in the tobacco industry was made in the cigarette branch of the business by the organization of the American Tobacco Company in 1890. Conditions that favored such a combination were the special adaptability of cigarette making to the use of machinery, the exceedingly rapid growth of the cigarette industry, its concentration in a few large factories, the intensity of competi-

tion among these, and the control of the best cigarette machines by a few men through patents.

The increasing use of machine methods of manufacture during the years preceding 1890 had favored large-scale production and had helped to concentrate the business in the hands of a few great concerns. The last large branch of the tobacco industry which the American Tobacco Company interests sought to bring under their control was the manufacture of cigars.

Although the importance of the cigar business would seem to make it a tempting field for monopolistic combination, the methods of manufacture are such as to render such a combination much more difficult than in the other branches of the tobacco business. The manufacture of cigarettes, plug tobacco, and smoking tobacco, even before the formation of the combination, had been largely in the hands of a comparatively few big concerns. This concentration was, in considerable part, due to the extensive use of machinery for making these products. But even at the present time a very large proportion of all cigars are hand made. Even where machinery is used, it plays relatively a much less important part in the process than it does in other manufactures of tobacco.

#### *Combinations in the Trade<sup>4</sup>*

The extreme concentration of the cigarette, smoking, and chewing tobacco manufacturing was in the hands of the American Tobacco Company before 1911, and its subsequent dissolution is common knowledge. By 1907 this company controlled 74% of the cigarette, 70% of the smoking tobacco, 81% of the chewing tobacco, and 89% of the "little cigar" trade of the country. It purchased from 70% to 80% of the tobacco leaf used for domestic consumption. In 1907 the Government charged that this monopoly was injurious to the public interest, and in 1911 the Supreme Court ordered a plan of dissolution whereby fourteen companies were formed to take over the properties of the American Tobacco Company.

In an investigation made by the Federal Trade Commission in 1920, considerable evidence of the violation of this decree and a tendency toward consolidation in both the buying and selling ends of the industry were found. In 1921 it was estimated that the R. J. Reynolds Tobacco Company supplied about half of the cigarette consumption by the production of Camel cigarettes. Their Prince Albert smoking to-

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<sup>4</sup> N. Levin, term paper cited above.

bacco also constitutes a large portion of the smoking tobacco consumption. It is estimated that the American Tobacco Company controls about 20% of the cigarettes trade with its Lucky Strike, 26% of the smoking tobacco production, and 16% of the plug output. The Liggett and Myers Company and the P. Lorillard Company control most of the balance of the trade.

### *Direct Distribution*

Direct distribution to the retailer is not usually considered feasible, usually because of the small quantities that the retailer orders.

### *The Jobber*

Jobbers usually find it economical to confine themselves to a group of small-sized towns, or to a single city. Many jobbers operate in a territory ranging from a section of a state to several states. It will be found, however, that in these cases, they handle other lines, such as groceries, candies, cigars, and the like, and are not purely tobacco jobbers. One reason for the predominance of the local jobber is transportation costs, which he can reduce by delivery by truck. Another and probably more important reason is that the price situation does not favor the large jobber. The manufacturers do not make any price distinctions between the large and small jobber, and thus the smaller overhead cost and the necessity of service favor the smaller jobber. It will usually be found that in a town of about 50,000 there will be from two to five jobbers, while in the larger cities the size of the jobber is larger. For example, it is estimated that there are 30 jobbers in Chicago, or one jobber for every 75,000 to 100,000 people. In the large cities, however, the sub-jobber is much more important in numbers and in size than in the smaller towns. In the smaller cities there is one jobber to 5,000 to 15,000 people.

It would be well to note here that very few jobbers handle cigarettes, smoking, and chewing tobaccos only. Most jobbers handle cigars, the advertised brands at least, gum, and mints. In these cases, however, the selling of tobacco products is the main source of income. Another class of jobbers, in which the candy jobbers, the cigar jobbers, and the wholesale grocers predominate, handles tobacco products as a side line only.

The jobber handles probably more than 500 different brands of tobacco products, in addition to other lines he may be selling. This difficulty is somewhat minimized by the jobbers' practice of borrowing



commodities from one another when they run short and returning the commodity when their own shipment arrives. The jobbers realize that there is always a danger of running short of some article, no matter how carefully they may control their inventories, because of transportation or production difficulties. They loan to each other in anticipation of their own shortages.

It has been said that the jobber finances the selling of certain commodities. Nowhere is this more true than in the sale of tobacco products. Briefly, the jobber practically pays cash for his purchases and finds that he must extend credit to the retailer for 30, 60, and in some cases 90 days. The jobber is billed from the manufacturer at 2% 10 days, 30 days net.

In general, it might be said that the jobber is used in most cases. The exceptions to this generalization is that the American Tobacco Company controls the United Cigar Stores, and the P. Lorillard Company controls the Schulte Stores.

#### *The Sub-Jobber*

The sub-jobber is a middleman who buys from the jobber and sells to the retailer. He frequently sells at retail also. He is usually an overgrown retailer who, because of the better prices he obtains through the large quantities he purchases, sells to the small stores in his immediate vicinity at list prices.

Another type of sub-jobber that has sprung up in the past few years is one who sells directly from his truck. He usually maintains no place of business. He buys from the jobber at extremely low prices and pays cash, for usually the jobber is unwilling to sell to this type of sub-jobber on credit because of the high degree of risk involved and the narrow margin of profit. This sub-jobber sells the more staple brands from his truck and takes orders for anything else that the retailer may need.

Sub-jobbing forms from 10% to 40% of the jobbers' business.

#### *The Retailer*

The unit store buys its tobacco products from the jobber through the medium of the jobber's salesman, who usually calls on him weekly; or it may buy from the specialty salesman of the manufacturer, who may sell directly from his own car, may turn over the order to a jobber, or may send it direct from the factory through the jobber. As practically all tobacco products are branded and well advertised, the retailer has very little choice in the articles that he will sell.



The chain stores usually have no contacts with the jobber. They are usually controlled by the manufacturers, who supply them with their own wide variety of products, and the products of other manufacturers which they must sell are usually purchased through a centralized warehouse that buys for the chain stores situated throughout the country. The only two important chains are the United Cigar Stores, controlled by the American Tobacco Company, and the Schulte Stores, controlled by the P. Lorillard Company. In addition to these two cigar store chains, there are several important drug store chains that buy their tobacco products through their own jobbing houses.

The department store is similar to the unit store except that the department store is operated on a larger scale and that the selling of tobacco products is not considered an important source of income by them. One or two of the larger manufacturers sell to the large department stores, but these stores usually buy their products from jobbers who are willing to sell at a small margin of profit. The disturbing feature about this type of retailer is that in many cases they advertise the sale of tobacco products at a lower price than other retailers pay, and in some cases even cheaper than the jobbers themselves pay. They are willing to take the loss to induce customers to come to their stores.

### *General Advertising*

The national advertising of the manufacturers of tobacco products is known to all. Camels, Lucky Strikes, Chesterfield, Fatima, Clowns, Bull Durham, Prince Albert, Tuxedo, Velvet, and many other names are words which mean but one thing to most people, and that is a certain brand of tobacco products.

### *Sales Organization*

Most of the larger companies except the American Tobacco Company have branch offices in the larger cities. These branches are the headquarters of the district managers, who carry out plans and policies set by the home office. They have nothing to do with the ordering or shipping of goods to the jobbers or retailers, but serve as headquarters for advertising activities. The American Tobacco Company abolished this system a few years ago and now controls all activities from its offices in New York.

### *Spoiled Goods*

During the war, large quantities of tobacco were sent to France unstamped. After the war, much of these goods was sent back here and

then stamped and placed upon the market. By this time the goods had become old and otherwise in poor condition. These goods could be marketed only through the jobber and were offered to him at a very low price.

The American Tobacco Company will accept any goods for credit if returned within a year after purchase; after that period it deducts from 25% to 50%. This company has also adopted a preventive policy. It warns the consumer not to accept any goods sold after a certain date, usually about six months after the manufacture of the product. This date is placed in a conspicuous place on the package, carton, and case in which the commodity is packed. The company also helps the jobber by allowing him to order as little as one carton of a single commodity at one time, and in some cases it will even cut down a jobber's order if it considers it excessive.

### *Price Policies*

Tobacco and cigarettes are billed to the jobber without a single exception at discounts of 10% and 2% from the list price, the latter only ostensibly a cash discount. As in many cases the 2% amounts to half of the jobber's profit, he can scarcely afford to pass up this discount.

Another policy of most of the companies which reduces the risk to the jobber is that of guaranteeing the jobber against any drop in prices. At the time that they announce the drop in prices they ask the jobber to send in signed memoranda of his inventories; and a few days later the jobber receives a check or credit for the amount of the price reduction.

PRODUCTION OF CIGARS, CIGARETTES AND OTHER MANUFACTURED TOBACCO IN THE UNITED STATES<sup>5</sup>

	Large Cigars (millions)	Small Cigars (millions)	Cigarettes (millions)	All Other Tobacco (millions)
1900 .....	5,566	611	3,259	301
1905 .....	6,748	804	3,674	368
1910 .....	6,810	1,118	8,664	447
1920 .....	8,097	633	47,458	413
1924 .....	6,658	531	71,024	413

New York City, long known as the tobacco center of the world, is fast losing its right to that title and this is largely due to the fact

<sup>5</sup> From *Guaranty Survey*, June 29, 1925.

that cheap woman labor, such as is used in cigar and cigarette factories, is no longer plentiful in this city. The trend of the tobacco products industry during recent years has been toward those communities where there is much work for men and little work for women and where the women are of the class which continues to work in factories after marriage. New York, however, still is the greatest tobacco consuming center in the United States, particularly of the better grade of cigars and of Turkish cigarettes.<sup>6</sup>

That St. Louis takes first rank with the important tobacco centers of America was declared by an official of Liggett and Myers Tobacco Company, the largest operating company in St. Louis. St. Louis' advantages are principally those of location. The city is near the fields of supply. Nearly all the tobacco used in the Liggett and Myers plant comes from Kentucky. This is called burley and forms the inside of the plug and twist tobacco, which is the only kind manufactured here. The outside, or "wrapper," is made up of a very special high-grade leaf which comes from Virginia or the Carolinas.

St. Louis is the distributing point for hundreds of carloads of cigarettes and smoking tobacco that come from other Liggett and Myers' factories and are sent here to be distributed. Advantageous location causes this arrangement in distribution. Tobacco shipped into St. Louis in such fashion is broken up into smaller shipments that go to every state in the Union. St. Louis makes and ships more tobacco to the Philippine Islands than into any country in North or South America.

The Liggett and Myers Tobacco Company owns and operates factories in ten cities, the one in St. Louis being the largest factory in the world devoted exclusively to the manufacture of plug and twist tobacco. Plants are maintained at 25 other points for handling, curing, stemming, and storage of leaf tobacco.<sup>7</sup>

The present cigar market is approximately 7,500,000. A canvass of those in a position to know showed that the average cigar smoker uses 100 cigars a year. On this basis, 7,500,000 cigar smokers would consume 7,500,000,000 cigars. Of the national production of cigars, more than one-third is represented by those retailing at less than five cents, mainly cheroots and stogies. The remainder, 5,000,000,000 cigars, is consumed by 5% of the population.

Of cigars at 3 for 25 cents and up, made in the United States or im-

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<sup>6</sup> From *American Industries*, December, 1924.

<sup>7</sup> From *American Industries*, October, 1925.



ported, there are, according to the best trade authorities, just about an even 1,000,000,000. There is a marked difference, however, between the consumption of cigars at 10 cents and over as found in cities of 25,000 and over, and in communities from 2,500 to 25,000. The larger cities show a ratio of about two to one over the smaller places.

It is the belief of the General Cigar Company that fully 90% of the value of advertising lies in making the advertised brands easy to sell. The national advertising itself has appeared in three national weeklies since May, 1916—*Saturday Evening Post*, *Collier's*, and *Literary Digest*, the three publications considered most likely to reach the "Robert Burns" smokers.<sup>8</sup>

The cigarette manufacturers do not dare to advertise outright to women, although they admit that the latter now constitute a very important part of the cigarette smoking public. One of the biggest men in the industry very candidly admitted that they are looking forward to the time when they may make a direct appeal; even now they are ready.

"Almost every state, at some time or other, has had its anti-cigarette bill, the late Lucy Page Gaston and her followers having been the leaders in the campaign. The antis, however, made their idea stick in only a few spots—Kansas, Iowa, Indiana, and Mississippi."

With such conditions existing, it is natural that the industry should be timid about inviting more trouble through advising women to smoke. Yet the time is near at hand when they believe public opinion will be on their side, and within the next year or two I expect to see billboards, magazines, and newspapers frankly carrying "ad" appeals to the ladies.

"Fatima was the forerunner of the present-day most popular brands for men and women—the kind that are a mixture of domestic and foreign tobaccos, though chiefly constructed of the white burley of Kentucky. Camels, Lucky Strikes, and Tareyttons all are of this type.

"For several years Fatima had this field almost to itself. Then, when the American Tobacco Company was partitioned, R. J. Reynolds came out with Camels and the American with Lucky Strikes. These are the outstanding sellers today, and have been for some time."

There has been an almost ceaseless billboard and printer's-ink battle going on among these three.

"I'd Walk a Mile for a Camel," said R. J. Reynolds on signs fifty feet long.

"They're Toasted," retorted the American in behalf of Lucky Strikes.

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<sup>8</sup> From *Business Digest*, November 21, 1917.



"What a Whale of a Difference Just a Few Cents Make," interpolated Liggett and Myers, justifying the breach of a few pennies between the cost of rival brands and the price at which Fatimas are sold.<sup>9</sup>

A test was recently made upon twenty thoroughly seasoned cigarette smokers. The group consisted of six women and fourteen men. Each individual was shown seven packages of cigarettes—Lucky Strike, Egyptian Diety, Piedmont, Camel, Herbert Tareyton, Chesterfield, and Fatima. All were more or less familiar with each of these brands. Each individual was asked what cigarette he regularly smoked.

The subjects were blindfolded. The cigarettes were either handed to the subject or else placed in his mouth. He was told to smoke the cigarette, to take it from his mouth and handle it, taste it, and smell the smoke at the burning end. In other words, he was allowed to make his judgment on any sensory basis whatever except that of the sight of the printed name.

The surprising thing about the whole test is that so few correct judgments were made. The average number for the men was 2.4, and for the women 1.5. When one considers that there is a probability that one judgment in seven will be right by chance, the conclusion is evident that under the conditions of this test the ordinary smoker without considerable training cannot correctly discriminate among cigarettes belonging in the same general class. Even the cigarette regularly smoked by the subject was correctly named only 13 times out of 36 chances.

Are we to conclude from these tests that there is no basis for a smoker's insistence upon a given brand? Evidently there is no sure basis for an *immediate* judgment on cigarettes in the same class grounded upon differences in the sight of the smoke, smell, taste, and touch. Smoking a given brand of cigarettes probably slowly sets up a genuine organic demand for that brand. The stomach, respiratory passages, and lining of the esophagus, get "conditioned." Each brand sets up an organic habit peculiar or specific to itself. There are enough slight chemical differences even in brands of the same class to "set" the stomach and respiratory passages in this way. Hence the slogan "Your nose knows" is not true; it would be much nearer the truth to say "Your stomach knows."<sup>10</sup>

The Oriental demand for the American cigarette extends to practi-

<sup>9</sup> From *Advertising and Selling*, October 20, 1926.

<sup>10</sup> From John B. Watson, *What Cigarette Are You Smoking and Why?* published by J. Walter Thompson Company, July 1922.

cally every country of the Asiatic continent but is especially marked in China, Straits Settlements, and India. The number of cigarettes sent to China in the fiscal year which ends with next month will approximate 7,000,000,000 against 723,000,000 in 1915. Straits Settlements ranks next to China in the demands for American cigarettes, apparently because of the large sprinkling of Chinese with whom the American cigarette seems to be especially popular.

The East Indian has also developed a taste for American cigarettes in recent years.<sup>11</sup>

### *Tobacco Trusts*<sup>12</sup>

Any consideration of the subject of the tobacco industry during recent years<sup>13</sup> is necessarily largely a consideration of the relation of the Tobacco Combination to the industry. This is evident from the fact that the Tobacco Combination controls substantially three-fourths of the business of manufacturing tobacco, other than cigars, in the United States.

The Tobacco Combination is, in ordinary speech, designated as the "American Tobacco Company." As a matter of fact, the American Tobacco Company is the central and dominant factor in the combination at the present time. The American Tobacco Combination, the original corporation around which the combination has since centered, was organized in 1890. It took in the principal cigarette manufacturers of the country and from the outset had a large degree of monopoly in the cigarette business.

By the purchase of the National Tobacco Works in 1891<sup>14</sup> the American Tobacco Company has acquired several popular plug brands. In 1893, Mr. James B. Duke, president of the American Tobacco Company, endeavored to engineer a combination of plug tobacco concerns. Not proving successful in this, the American Tobacco Company in 1894 began an aggressive campaign for the control of the plug business. As a part of the competitive warfare, prices were cut below cost. The principal brand made use of in this fight was appropriately termed Battle Ax. In 1891 this brand had retailed at 50 cents a

<sup>11</sup> From *Foreign Trade Record*, The National City Bank of New York, May 12, 1919.

<sup>12</sup> From *Prices of Tobacco*, report of the Bureau of Corporations, U. S. Department of Commerce and Labor, May 14, 1909.

<sup>13</sup> Note that the report from which this passage is taken was published in 1909.

<sup>14</sup> From Eliot Jones, *The Trust Problem in the United States*, The Macmillan Company, New York, 1921.

pound; in 1894 the price was reduced to 30 cents. This policy of price cutting was accompanied by an advertising campaign which was pushed most vigorously in the territory of the leading competitors. In some sections, indeed, agents of the American Tobacco Company presented every man they met with a free sample of Battle Ax. By such means, the American Tobacco Company, aided as it was by the advantages enjoyed through its control of the cigarette trade, was able to increase its sales of plug tobacco from 9,000,000 pounds in 1894 to 38,000,000 pounds in 1897, and its proportion of the total production from 5.6% to 20.9%.

The trust also made frequent use of the practice of local price discrimination. In the localities where independents sought a foothold, the trust frequently sold its so called "fighting brands" at a loss, and in this way checked the growth of the independent concerns, whose field of competition was generally local.

The American Tobacco Company<sup>15</sup> during the nineties built up a very considerable business in plug tobacco and smoking tobacco. In December, 1898, the Continental Tobacco Company was organized. Thereupon the American Tobacco Company transferred its plug tobacco business to the Continental Tobacco Company, which at or about the same time took in a number of the other leading manufacturers of plug tobacco. The Continental and the American companies together also possessed a considerable proportion of the business of manufacturing smoking and fine-cut tobacco. The American held stock in the Continental and the same men controlled both companies.

In October, 1904, the American, Continental, and Consolidated companies were merged under the name of American Tobacco Company. It is itself a large manufacturing concern, its output being chiefly cigarettes, little cigars, plug, smoking, and fine-cut tobacco. Subsidiary to the American Tobacco Company are three other important combinations: (1) The American Cigar Company, much the greater part of whose stock is held by the American Tobacco Company; (2) The American Snuff Company, not quite half of whose stock is owned by the American Tobacco Company, but which operates in entire unison with that company; (3) The British-American Tobacco Company, approximately two-thirds of the stock of which is held by the American Tobacco Company, most of the remainder being held by the Imperial

<sup>15</sup> From *Prices of Tobacco*, report of the Bureau of Corporations, U. S. Department of Commerce and Labor, May 14, 1909.



Tobacco Company, a British combination. The British-American Company conducts the export and foreign business of the combination.

In May, 1911, the United States Supreme Court<sup>16</sup> decided that the old American Tobacco Company and certain of its subsidiaries and stockholders constituted an illegal monopoly under the Sherman Anti-Trust Act (221 U. S. 106). As a result of this decision, a decree was entered November 16, 1911 (191 Fed. 371) providing for the taking over of the properties and the business of the defendants by 14 companies, among which was the present American Tobacco Company. The 14 companies became subject to the decree, and certain of its provisions also applied to the Imperial Tobacco Company, Ltd.

The decree of the Circuit Court of the United States for the Southern District of New York in the case of the United States of America, plaintiff, against The American Tobacco Company and others, defendants:

Now, it is ordered, adjudged, and decreed that all the defendants . . . . became parties to and engaged in the combination . . . . which . . . . is "in restraint of trade and an attempt to monopolize," . . . . which should be dissolved and a new condition brought about in harmony with and not repugnant to the law. And it is further ordered, adjudged, and decreed . . . . that Amsterdam Supply Company be dissolved, . . . . that covenants . . . . not to engage in the tobacco business . . . . be terminated so that all such covenanters shall be at liberty to engage in the business of buying, manufacturing, and dealing in tobacco and its products. There will be organized a new corporation called Liggett and Myers Tobacco Company and a new corporation called P. Lorillard Company, and the American Tobacco Company will convey to these two companies factories, plants, brands, and businesses and capital stocks of certain tobacco manufacturing corporations.

As a result of the above,<sup>17</sup> the American Company sells in this country some of the brands owned at that time by the English concern, and the latter in turn sells in Great Britain certain brands owned and manufactured by the American company. Some of the Imperial brands of smoking tobacco made and sold by the American are Capstan, Garrick, Three Castles, Benson & Hedges No. 1 Mixtures, Glasgow Mixture, Traveller, and Gold Flake. The cigarette brands are Players Navy Cut, Three Castles, Capstan, and Gold Flake. Among the important American brands sold by the Imperial company is Pall Mall

<sup>16</sup> From *Report of the Federal Trade Commission on the Tobacco Industry*, February 9, 1919.

<sup>17</sup> From *Report of the Federal Trade Commission on the Tobacco Industry*.



cigarettes. Other American brands now sold by the Imperial company and which were in existence in 1911 are Bull Durham, Lucky Strike, Old English Curve Cut, Piper Heidsieck, Seal of North Carolina, and Sweet Caporal cigarettes. In order to preserve the identity of the brands, the American company manufactures and sells to the Imperial company at cost its requirements of Pall Mall and Lucky Strike cigarettes. The sales of these brands are not large. In 1924 the total value of smoking tobacco and cigarettes purchased from the Imperial by the American was only about £6,227, while the value of Pall Mall cigarettes of the American sold to the Imperial for use in Great Britain was only \$4,687.26.

#### TOBACCO PRODUCTS<sup>18</sup>

On October 20, 1925, the Circuit Court of Appeals, Second Circuit, decided the case of *Federal Trade Commission vs. The American Tobacco Company*. It appeared that a group of Philadelphia tobacco jobbers had formed an association and had agreed upon prices at which they would sell tobacco products to retailers. The American Tobacco Company either adopted the prices so fixed by the jobbers' association or else it originally suggested the prices which were later adopted by the jobbers. There was no agreement whatever between the American Tobacco Company and the jobbers whereby the jobbers agreed to maintain the resale prices, and, so far as appears, the American Tobacco Company made no effort to induce the jobbers who were members of the association to report competitors who sold for less than the designated resale price. However, the American Tobacco Company let it be known to the Philadelphia jobbers that it would refuse, in the future, to sell to any of them who did not maintain the suggested or adopted resale price. The Federal Trade Commission issued an order directing the American Tobacco Company to cease and desist from assisting and agreeing to assist the jobbers in maintaining resale prices fixed by agreement, understanding, or combination with any other jobber handling the products of the American Tobacco Company.

The Circuit Court of Appeals reversed the Federal Trade Commission.

#### SNUFF<sup>19</sup>

The quantity of snuff consumed annually in the United States is

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<sup>18</sup> From *Printers' Ink Weekly*, November 5, 1925, p. 129.

<sup>19</sup> From *Tobacco*, January 3, 1924.

now more than double the amount used 20 years ago and more than three times that used 30 years ago.

When the manufacture of snuff developed commercially in the United States, the types of leaves used were grown principally in Virginia, and snuff manufacturers located their plants within short distances of this center of leaf supply. The principal cities of manufacture were Philadelphia, Baltimore, Jersey City, Helmetta, and Lynchburg. With the development of dark-leaf tobacco cultivation in Tennessee, that state outranked Virginia as a source of leaf tobacco suitable for the manufacture of snuff, and the center of the snuff manufacturing industry gradually moved toward the source of supply of leaf tobacco suitable for that purpose. Nashville, Clarksville, Memphis, and Chicago became important snuff-producing centers, the latter city being the principal manufacturing center for Swedish snuff.

## LVII

### ALUMINUM AND ALUMINUM PRODUCTS<sup>1</sup>

#### *The Analysis of the Market*

GEOGRAPHICALLY, the primary market centers for raw and semifinished aluminums are widely scattered over the industrial area of the United States, but more particularly in the New England, Central, and Middle Western States. In indicating the geographical location of market centers those parts of the industry carried on by the Aluminum Company of America as well as by independents have been included.

The chief cities where ingot aluminum is used in the making of castings for the auto industry are Cleveland, Detroit, Doylestown, Ohio, Rochester, Newark, Pottstown, Pennsylvania, Philadelphia, and Chicago.

Ingot aluminum used in making wire and electrical equipment is sold largely in New Kensington, Pennsylvania, and Massena, New York.

The market for aluminum sheets used in the manufacture of cooking utensils and novelties is in the following cities and towns: New York, New Kensington, Pennsylvania, Newark, Manitowoc, Wisconsin, Two Rivers, Wisconsin, Doylestown, Ohio, Massillon, Ohio, Lemont, Illinois, La Grange, Illinois, Berkeley, California, Cleveland, Sidney, Ohio, West Bend, Wisconsin. Brewery equipment, hotel ware, cannery equipment, steamers, and so forth, are made by the Aluminum Company of America at the New Kensington plant; no other market exists for aluminum for this purpose.

The chief market centers for ingot aluminum for the making of ferroaluminum (used in the steel and iron industry) are in the centers of the steel industry—in Pittsburgh, Bethlehem, Cleveland, Chicago, Gary, and Birmingham.

Metal for the making of aluminum alloys is marketed largely in New Kensington, Detroit, and Sewaren, New Jersey.

Metal used in the manufacture of miscellaneous articles and for munition purposes is marketed in the cities which serve as centers of the cooking utensil and novelty industries.

<sup>1</sup> From Homer Ewart Gregory, "The Marketing of Aluminum Products," Thesis, Department of Commerce and Administration, University of Chicago, 1917.

*Competition Within and Between Market Centers*

Competition both within and between these primary markets is of small importance. Since the production, manufacture, and sale of the raw material is monopolized, the marketing of pig aluminum in the United States for the most part has become a matter of filling the orders of subsidiary companies. Of more importance for purposes of the present study is the competition between the handful of small manufacturers and the trust for control over the making of semifinished and finished products, and the competitive struggle between the trust and importers of foreign ingot metal for control over the sale of raw material.

*Analysis of the Trade Organization*

In outlining the process of distributing aluminum in the United States, a decision has been made between the marketing of (1) ingot aluminum, (2) partly finished goods.

*Ingot Aluminum*

Approximately 80% of the total quantity of ingot aluminum consumed in the United States is distributed by the Aluminum Company of America to three groups of consumers; (1) its own subsidiary companies, the United States Aluminum Company and the Aluminum Seal Company, (2) the group of "affiliated companies," the Aluminum Goods Manufacturing Company, the Aluminum Castings Company, and the Standard Aluminum Company, (3) the group of independent manufacturing companies and foundries. The remaining 20% is imported from Europe through importing houses and metal brokers and sold in direct competition with the American made metal.

*Semifinished Aluminum*

The Aluminum Company of America is the chief source of supply in the United States of fabricated as well as of ingot aluminum. Some of the small, independent manufacturing concerns make such products as tubes, extruded shapes, pipe rods, and the like. However, their number is small. The chief advantage which the Aluminum Company of America has over independents lies in the fact that it is able to offer a greater variety in sizes and shapes, and in a greater volume.

The business organization built up around the selling and distribution of aluminum in America is comparatively simple. The almost perfect monopoly control which the Aluminum Company of America maintains now and has maintained over the industry in the past has enabled it not only to build up and hold a large clientele, but also to



serve that clientele with a minimum of expense to itself. Since competition of foreign producers has not been especially severe since 1912, no special effort is made or needed to secure the trade.

The system prevailing in marketing of semifinished aluminum with the manufacturing companies and the affiliated companies is as follows: First, the "direct quotation" method is employed. This means that practically all the aluminum sold by the Aluminum Company of America is sold on a contract basis. But few salesmen are used even in the largest branch offices in selling either crude or fabricated products, most of the ordering being done by correspondence or by personal interview between the manufacturing heads and the representative of the Aluminum Company at its own branch office. In the simplest situation, the manufacturer requests quotations by mail or goes personally to the branch office of the company and, upon satisfying himself that the price and quality are satisfactory, places an order for a year's or two years' supply. The order is filed and checked against as monthly requisitions covering the amount are received. For example, an order may be placed for 100,000 pounds of "waffle" 8-piece No. 1 ingots; 50,000 pounds of 18 by 30 No. 10 gauge sheets; 10,000 pounds of No. 12 two-inch tubing; 5,000 pounds of "tinnerns" rivets—a supply designed to last the manufacturer for a certain length of time. From time to time, orders will be made against this contract. As the parts are furnished, they are checked off by the company, and the manufacturer is notified that all metal of a certain kind contracted for has been shipped. Payment may be made with each order, or every six months, or by other terms specially arranged between the company and the manufacturer.

Advertising is conducted in some of the metal journals, more particularly in New England, where competition with foreign aluminum is most felt. A campaign of education is being conducted by expert metallurgists who review in many trade journals the results of experiments being conducted in the interests of the aluminum industry. In addition to this, the Aluminum Company secures the advantage of a certain amount of research work carried on in the Mellon Laboratories established in a number of universities in the East. This laboratory work is in part supported by the company in exchange for the special investigational work done by the universities in the attempt to commercialize the metal.

The Aluminum Company of America possesses no warehousing system in the United States outside of its storeroom facilities connected

with its reduction and manufacturing plants. No distribution from branch warehouses is done. All quotations are made f.o.b. factory, and shipments are made direct to the consumer. No attempt is made to assemble products in strategic distributing centers for short shipments to accommodate consumers' demands. Thus the warehousing problem is very much simplified.

That no warehouse system has been developed can be explained on three grounds. The first reason is low cost of transportation in less than carload lots. The comparatively low classification of aluminum (third class on ingots) permits the making of many small shipments. As most of the metal is marketed in the Official Classification Territory, the highest freight rate is approximately 50 cents a hundred.

The main advantage which would be gained by a warehouse system would be a saving in time in the delivery of orders to the small manufacturer. Short hauls mean prompt deliveries and a saving of delays. Demand for better facilities in this respect actually exists, according to the report of many small concerns.

A second reason for the absence of a warehouse system lies in the fact that the American monopoly, because of its strategic position in the market, is able to compel the consumer to do the distributing, handling, and storing for himself, even to the extent of paying the freight from whatever factory the company wishes to ship from. The absence of real, active competition is largely responsible for this state of affairs.

The third and the most important reason is in the fact that the principal consumers of the metal are, as we have shown, the subsidiary companies and the affiliated companies of the Aluminum Company of America. These companies, which use 75% to 85% of the domestic production, order in large consignments and store large amounts of their own metal. The remaining 15% to 25% would scarcely warrant the expenditure necessary to establish a system of warehouses, and until competition forces the company to make the concession, the present arrangement will probably obtain.

The aluminum producing companies early recognized the need of standardizing and improving their metal products and proceeded to raise the quality to a high test. Increase in consumption was dependent upon it. The demand for inspection and grading did not emanate from any government source. It was self-imposed and self-operating. The degree to which the quality of metal has been perfected and the extent of standardization are remarkable. Number one 99% grade

ingot aluminum is known the world over and always sells in any market for the top-notch price.

### *Imported Aluminum*

Imported aluminum in recent years has varied in quantity from 10% to 30% of the domestic production, the amount having increased steadily since the date of the break of the international pool in 1908. The Aluminum Company of America controls a substantial part of the imports through control of the Northern Aluminum Company, the sole producing company in Canada and the chief exporter to the United States.

A large proportion of the metal which reaches this country passes through the hands of the large European merchant speculators doing international trade, and with international interests and connections. The sellers are located largely in Germany (principally in Frankfurt and Berlin) and in London. The metal is made in the Alpine districts of France and Switzerland and in England and Norway and is exported from Hamburg and Antwerp.

The brokers or metal dealers in America usually take orders from the American manufacturers, foundry men, or small metal dealers on "direct quotation." This method of direct quotation is most prevalent. A number of large metal brokers in New York or Boston have branch houses in the interior, and it is from these dealers that the competition is felt most by the Aluminum Company of America. These metal dealers occasionally put salesmen on the road to push the sale of aluminum, especially in years of overproduction abroad. However, this practice is rather infrequent; most of the orders of small manufacturers and foundry concerns are made by direct quotations, and contracts are placed with the head offices for future deliveries. Direct dealing with European producers is seldom resorted to.

Importation from abroad is hampered in many ways. Great difficulty is often experienced by the independent manufacturers who attempt to purchase European aluminum, because of the fact that no regular connections are maintained by the European cartels in this country and because of the irregularity of shipments. The metal is imported infrequently and in large consignments. Such conditions make the domestic manufacturer loath to leave the domestic producer for the foreign seller, especially when he is warned that he will be cut off in time of shortage, or made to wait on the demands of other customers who have remained with the company, if he does so. As



a general rule, the small producer buys his entire supply from the Aluminum Company of America and only in time of extreme shortage does he buy from metal dealers.

Competition of European aluminum is naturally a little more severe on the east coast, and especially in New York, the great entrepôt for aluminum in the United States.

In considering the marketing of aluminum, it should be remembered that aluminum is a highly concentrated product, light in weight, and that no special disadvantage is experienced by the foreign producer because of the transportation charges. The steamship rate from French ports to New York in 1913 was 24 cents a hundred pounds in ingots, or less than 1% of the import value of that year. The freight rate from New York to Chicago was 50 cents a hundred pounds, or 2½% of the domestic price at New York, making a total cost for transportation from Havre, France, to Chicago of 74 cents a hundred pounds. Including the tariff of \$2 a hundred, the cost of moving a hundred pounds from the foreign producer to the domestic manufacturers or foundry companies, not including the handling costs, was \$2.74, 15% of the domestic price.

The international movement of surplus supplies is hampered by many tariff walls and, up to 1914, by world pools. The breaking of the Aluminum Industry Aktien-Gesellschaft agreement at that date and the recent reduction in the American tariff of 1913 has opened the American market to the competition of foreign aluminum and brought about a general leveling of American prices. Thus, while the American monopoly is the producer and has a powerful hold on the consuming market, its price policies are necessarily modified by international competition.

No open market in the aluminum trade has arisen in America, for the simple reason that production is under absolute control and little surplus exists to be marketed. No aluminum brokers, in the sense in which this term is used in the wheat exchanges, are needed to hedge for the foundry man who may want a million pounds of ingots next year. The Aluminum Company makes all future deliveries and takes whatever risk there may be in the transaction. The function of bringing the forces of supply and demand together, so far as it is performed by anyone, is done by the monopoly.

In this country, the common meeting place of buyer and seller is in the branch offices of the sales department. No higgling of the market is noted here. The process is quiet and orderly. Details as to



terms of delivery and amounts are the main things considered. The price evidently is fixed "higher up."

In the United States the price is fixed at the New York office of the Aluminum Company of America. The price quotations given in the metal journals are those at which contracts are closed by the company. Ingot prices, as well as the prices of tubes, sheets, bars, and rods, are also fixed by the company.

### *Aluminum Cooking Utensils and Novelties*

In order to get a proper understanding of the present distributive system in the aluminum cooking utensil trade, it will be necessary to go back a few years in the history of the aluminum industry. Aluminum cooking ware has been on the market in the United States since about 1891. Prior to this date the cost of aluminum was so high that it was unprofitable to use it for culinary purposes.

With the fall in the price of aluminum to 45 cents a pound, production began on a fairly large scale. From the single manufacturing company started in 1891, the number rose rapidly during the nineties, and in 1900 there were a score or more concerns engaged in the making of aluminum ware. The novelty of the metal helped in selling large quantities; for a time, an aluminum fad existed. Aluminum retail stores were stocked with aluminum ware and novelties, and jobbing concerns came into existence for the purpose of handling aluminum exclusively. But the fad died out as all fads do, and demand slackened. The poor quality of the ware made by some of the small concerns tended to place it in disfavor in the eyes of the consumers. As demand slackened, competition set in between the numerous manufacturers. As a result, utensils of poorer grade were put on the market, which in turn further served to discredit the ware. This naturally affected the demand for crude aluminum.

The high price of the ware tended to reduce the sales of retailers and this meant infrequent turnovers. In many cases the retailer was unacquainted with the merits of aluminum cooking utensils, and since "aluminum was aluminum" to him, all brands tended to appear the same, and he was unwilling to push any brand and sometimes even to handle it at all.

In cases where the retailer handled a good grade of aluminum, he found out that aluminum would wear indefinitely, that when a woman purchased a kettle, it practically meant that he would never sell another cooking utensil of that kind to that individual so long as he was in

business. If she purchased a cheap granite or porcelain utensil, she would come back in a year or two years for another. Hence, the retailer preferred to sell the latter kind of goods.

The independent manufacturers were in a dilemma. Aluminum cooking utensils were off-sellers in the wholesale trade, a drag in the retail trade, and not in favor with the consumer. Aluminum was discredited in the eyes of the consumer, retailer, and the wholesaler.

The independents were financially unable to put on a national advertising campaign and the prospects were uncertain. Their only outlet had been through the wholesale and jobbing trade, but this, as we have seen, was virtually closed. No one cared to handle a line which was a slow seller. The retailer found little profit and much inconvenience in handling it. As a result of the unfavorable situation, some of the manufacturing concerns were forced to shut down and quit the field.

To save the market from annihilation, to create a demand for a higher grade of cooking utensil, and to increase the consumption of raw aluminum, the Pittsburgh Reduction Company (now the Aluminum Company of America) in 1901 organized the United States Aluminum Company, a manufacturing department of the industry, and created the Aluminum Cooking Utensil Company as a selling agent to revive the cooking utensil trade and to aid in creating a demand for ingot aluminum.

An analysis of the market in the United States was made, and as a result of the investigation a plan was devised. It consisted of two parts, national advertising, and a system of demonstrating salesmen, or house-to-house canvassers. The scheme was started. Advertising was conducted in the leading women's publications, and a corps of salesmen was put in practically every county and city in the United States where prospects were favorable. College students were selected wherever possible. In fact, they composed the vast majority of the sales force. Today [1915] there are approximately 3,500 working during June, July, August, and September, and approximately 500 all-year men.

### *The Lines of Goods Handled by the Trade*

First are the fancy utensils. In this class belong coffee percolators, after-dinner tea kettles, teapots, chafing dishes, double baking dishes, and the like. These are not generally considered staples and are handled in a different way from the other lines. They are handled as

premiums or sold through the city stores. Sometimes they are sold directly from the factory.

Second are the specialties, so called because they are featured for special advertising purposes. Usually they are patented goods and handled by single companies, as, for example, the salesmen's specialties handled by the "Wear-Ever" house. The appeal of this type of goods is universal, and they are one of the heaviest sellers of any single lines of ware in the United States. They are made with the idea of economy.

Experience has shown that cities of 40,000 population have been worked steadily for 15 years by the same salesmen. The tendency at the present time for most cities of moderate size is to increase their consumption. However, the retail trade is growing at a faster rate than the increase in direct sales by demonstrators.

Aluminum cooking utensils appeal to all classes. The cost of consumption is low, or in other words the depreciation is extremely small; hence repeat orders are practically unknown; the market at present is coextensive with the United States, and the urban selling is more concentrated and larger than the rural.

### *The Distributive Organization*

The distributors of aluminum cooking utensils may be grouped into two classes, those concerns owned by or affiliated with the Aluminum Company of America, and the independents.

First in importance from the point of view of volume of business is the distributing organization controlled by the Aluminum Company of America. This organization as it exists today is divided into three main divisions, the direct-to-consumer department, the jobber department, and the retailer department. The United States Aluminum Company is the manufacturing department of the company. The Aluminum Cooking Utensil Company, its sales department, devotes its main energies to the direct-to-consumer business. This must not be confused with the mail order business. Some goods are distributed by mail orders to consumers, but the quantity is very small. The outstanding feature of this department is the use of the demonstrating sales force, or the house-to-house canvassers. It was this department which was started by the United States Aluminum Company in 1901 to revive the cooking utensil industry. The direct-to-consumer campaign methods have been retained up to the present time. Large



sales are made to retailers as well, to supply the demand created by the advertising and demonstrating campaigns.

The Aluminum Goods Manufacturing Company takes care of the jobber demand. None of the other companies affiliated with the Aluminum Company of America at present supplies the wholesale market. The Aluminum Goods Manufacturing Company is the largest manufacturing concern catering to the wholesale trade in the United States. The company uses a trade-mark of its own, but the greater part of the manufacturing is done under jobber brands. The Standard Aluminum Company, connected with the Aluminum Company of America through indirect stock ownership, devotes all its energies to the retail trade.

Because of the slowness of the turnover of aluminum cooking utensils and the smallness of the average order which the retail hardware dealer places, the small-scale manufacturer cannot afford a sales force to handle the single line; hence he is forced to rely on the jobber for an outlet for his goods. Among the small hardware stores, the turnover is seldom over two times a year. The average stock kept ranges from about \$200 to \$250, usually divided among three or four brands.

Practically every kind of cooking container required for the preparation of foodstuffs and many auxiliary utensils used in the kitchen are produced by aluminum cooking utensil manufacturers. The Aluminum Company of America's monopolization of the domestic deposit of bauxite (the mineral from which aluminum is obtained) and its monopoly of the domestic production of aluminum, which is fortified by high tariff duties on crude and semifinished aluminum, makes it practically impossible to consider conditions in the aluminum cooking utensils industry separately from the position of the Aluminum Company of America. The aluminum cooking utensil manufacturers are practically dependent upon that company for their raw material and are all more or less affected by its methods and policies.

The Aluminum Goods Manufacturing Company is the largest manufacturer of cooking utensils. The Aluminum Company of America, which owns nearly 31% of its capital stock, is represented by two members on the board of directors and, according to the records, closely controls the policies of the Aluminum Goods Manufacturing Company. The second largest manufacturer of cooking utensils is the United States Aluminum Company, which is 100% owned by the

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<sup>2</sup> *Report of the Federal Trade Commission on Aluminum Cooking Utensils Companies*, Vol. III, October 6, 1924.



Aluminum Company of America. According to data furnished by the Aluminum Wares Association, these two companies produce not less than 65% of the total output of aluminum cooking utensils in the United States.

### *Inferior Utensils*

The Brown and Sharpe gauge, also known as the American standard wire gauge, is used in the aluminum cooking utensil industry to denote the thickness of the metal from which the various utensils are manufactured.

During the past two or three years there has been an increasing tendency on the part of utensil manufacturers to introduce what they term "competitive lines of goods" in order to maintain their volume of sales. As a result of this policy, large quantities of utensils are being manufactured from the lighter and less serviceable gauges of metal and sold to the consuming public ostensibly as high-grade articles when, as a matter of fact, they are inferior.

## LVIII

### MEN'S CLOTHING<sup>1</sup>

THE leading men's tailors go to London twice a year for ideas, but as a rule the manufacturers work out their general style ideas here, in a large measure from suggestions brought in by their salesmen or local agents. The style risk, though not so heavy in the men's ready-to-wear industry as in the women's, is important enough to cause great anxiety at times.

The typical cutting house of the clothing industries is characteristically small. The relative amount of its capital is surprisingly low even for small concerns. Much of the cloth is bought on sufficient time to permit of its being paid for out of the sales of clothing. Obviously, the whole structure rests on the ready salability of the cutter's product. This salability is modified to some extent in men's wear, and almost entirely in women's wear, by the vagaries of fashion.

Most of the woolen and worsted cloth used by all except the very small cutters is bought directly from the cloth manufacturer. Most of the trimmings, on the other hand, are bought through jobbers. Thus, some of the style risk in trimmings is shifted by the cutters to jobbers who are able to care for it. In cloth purchases, however, the outlay is so great and the style risk so heavy that any loss due to misjudging the market would be too great for a dealer to bear. There is no buffer between the cutter and the cloth maker. If the cutter's customer cancels or repudiates an order for garments, the cutter has no alternative but to absorb the loss or, in turn, to repudiate his order for piece goods. In view of his small capital, the latter is his most usual course. Most cloth purchases are made by the piece and they are mainly in case lots. If the season progresses smoothly, the cutter is able to reach the end of the season with neither goods nor clothing on hand. If, however, there is any miscalculation of the strength or direction of style change, the best made plans fail, and the cutter, as an alternative to bankruptcy, cancels his cloth orders. This has led to a shocking state of distrust and demoralization, which

<sup>1</sup> From Paul T. Cherington, *The Wool Industry*, A. W. Shaw Company, Chicago, 1916.

associations of cloth makers and clothing makers alike are seeking to remedy. In the depressed months of 1907 the volume of cancellations both by retailers and by cutters was appalling. Even in normal years there is a great deal of it.

The sales of men's clothing are being made to an increasing extent direct to retailers. Most of the large makers of trade-marked clothes sell through exclusive agencies. Such houses as Hart, Schaffner and Marx, B. Kuppenheimer and Company, Alfred Benjamin and Company, Stein-Bloch Company, sell on this plan. It is quite usual for a retailer to take agencies for several lines, as, for example, one low, one medium, and one high priced trade-marked line, and at the same time to sell other clothing which either is unbranded, or which bears a name which he controls.

The branch retail store system is employed by some houses with apparent success. Browning, King and Company have sixteen branch stores through which practically all their output is sold. There are also a few chains of retail stores which do their own manufacturing, such as Rogers, Peet and Company, in New York City, and Talbot and Company, in New England. Each of these concerns also does some wholesaling.

The so-called "tailors to the trade," who have measuring agencies and who execute orders from a central factory, have figured quite conspicuously in the trade in recent years. The book houses and the regular mail order houses are said to be doing an increasing business from year to year in clothes ordered by mail.

It is probable, however (although no satisfactory figures exist to show it), that the greater part of the men's ready-made clothing trade of the country is conducted by the "regular" clothing stores which sell clothing unidentified by trade-mark or label. This trade is now mainly conducted by direct sales from the factory to the retailer. The sales are made by traveling salesmen, who are sent out from the factory twice a year. The men's clothing jobber is disappearing in a large measure, except in those cases where he had goods made for him to be sold under his own label. His last stronghold is in the country and small town trade, and even there mainly in the selling of working clothes. There are also a few jobbers who dispose of slow lines for manufacturers either on a merchant or on a commission basis.

This increase in direct sale to retailers by the cutters has led to the adoption of some new methods of selling. Formerly, the salesmen carried large lines of samples, sometimes 500 to 1,000 suits, and after

seeing these the retailer placed his orders. But with the increased demands for retailers for minor variations, the plan has become general for a salesman to take only a few suits (possibly twenty), merely to show the style and the finish, and then to supplement these by small fabric samples made by cutting up the cloth swatches given to the cutter by the cloth maker. From these (sometimes 1,000 or more in number) the retailer makes his selection of fabrics, to be made up according to his selection from the styles offered. In addition to cheapness and convenience, this method of selling has had two noteworthy effects. It has made it possible for small cutters to postpone their cloth purchases, and it has in measure decreased the retailers' sense of responsibility for holding to his bargain when he changes his mind about his order.

For the spring trade, travelers go out in September, October, and November, taking with them the manufacturer's cloth samples which were received by the cutters in June, July, and August, together with designs worked up with sample suits in the late summer months. The orders they receive are started through the factory or sent to the contractors whose product the clothing manufacturer sells. The initial orders are ready for delivery early in the winter, while reorders are executed in the late winter and early spring months. The reorder season represents the cutter's production peak. Therefore, the tendency among retailers is to overorder early in the season to avoid inability to secure the goods during that busy time. This practice has led to so much cancellation of early orders that manufacturers now frequently exercise the privilege of supervising their customers' orders, in a measure using their own judgment about conforming to the customers' delivery schedule, and even at times scaling down the orders sent in.

The greater part of the men's wear fabrics not sold through the cutting industry goes to the consumer by way of the tailor trade. Obviously, this trade calls for one or more middlemen between the tailor and the manufacturer. Most tailoring establishments are small, and few out of the total number are capable of keeping on hand very large stocks of piece goods. Generally speaking, therefore, the tailor's woolens, in their progress from the mill's selling house to the tailor, go through dealers in woolen goods, or dealers in woolens and tailor's trimmings. Most of these dealers are large enough to buy from the mill's selling house. Others buy from cloth jobbers extensively. The larger part of the tailors, in turn, buy from the dealers direct. But the smaller tailors, particularly in the metropolitan districts, buy in



suit lengths from suit-length cutters, who make a business of buying cloth by the piece and cutting it into suit lengths for this type of tailoring concern.

A recent directory of the dry goods wholesaling trade lists two kinds of concerns as covering the trade in woolens and tailor's trimmings. It does not appear in the directory, however, whether the differences between these two types of house are actual differences in organization and selling method or merely differences in terminology. A count of the concerns listed as "Dealers in Woolens and Tailors Trimmings" shows a total of 80 for the country. Of these, 26 were in New York and New England, and most of the others were gathered in such large jobbing centers as Chicago, Cleveland, and San Francisco. None was listed in the southeastern part of the country. A count of the concerns listed as "Dealers in Woolen Goods" showed a total of 152, of which 134 were within 200 miles of New York City. Neither the Southeast, the central South nor the Southwest had any concerns of this type listed.

A number of attempts have been made by manufacturers of tailor's woolens to identify their fabrics and advertise them to the tailors and to the consumers. The main feature of these campaigns has been the association of the idea of high quality with the name of the manufacturer and some easily remembered trade-mark. The chief uses made of this association of ideas have been to attempt (1) to increase the volume of purchases from the tailor, as against ready-to-wear purchases, (2) to secure the support of the tailor trade in pushing the manufacturers' products, and (3) to persuade consumers to ask for the mill's product in ordering clothes. Notable campaigns of this kind have been conducted by the Arlington Mills, the American Woolen Company, J. R. Klein and Company (Shackamaxon), S. Stein and Company, and the importing house of W. P. Willis and Company. The annual advertising appropriation of some of these houses has been as high as \$89,000. The results are said to have been reasonably satisfactory, but the practice of trade-marking woolen cloth has not spread so fast as was hoped by the advocates of this selling method.

In the men's wear fabric trade it thus appears that the introduction of the cutting industry has in a large measure made cloth selling a contract problem as far as the large and medium-sized clothing manufacturers are concerned. The smaller cutters, in the main, buy direct and on time. The wholesaling business, in cloths of this type,

is chiefly confined now to the types of houses which exist to supply small merchant tailors. The use of trade-marks on fabrics to give cloth manufacturers control over distribution has been tried, but cannot be said as yet to have completely passed the experimental stage. If this or any other method proves equal to a solution of the repudiation problem and of certain other difficulties which have grown out of increased style risk, such as deferred purchase and accelerated season schedules, it will serve to strengthen enormously the position of the woolen manufacturer and his ability to meet the pressure of a narrowing profit margin.

*Advertising Men's Wearing Apparel*<sup>2</sup>

In his house organ, under the title, "Declares National Advertising Is Negligible as a Reason for the Purchase of Men's Apparel," an important manufacturer of men's clothing takes the stand that national advertising of his garments would be "uneconomic and wasteful." Typical extracts from the article follow:

"National advertising is proved to be negligible, almost at the foot of the list, as a reason for purchasing articles of wear, either for men or women. Such was the statement of Dr. O. E. Klingaman.

"Advertising, Dr. Klingaman's studies have proved to him, does not sell goods, outside, possibly, of the very largest cities. Shopping around brings people into the dry goods and clothing stores in the rest of the country. Show windows do that work in the cities, he said."

All right. But, we may ask, after people have been brought into the store as a result of shopping around or viewing the show windows, then what? What do they buy? What do they select in return for their money? That is the really important thing.

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<sup>2</sup> From *Printers' Ink Weekly*, August 14, 1924.

## LIX

### HOSIERY

#### *Kinds of Hosiery*<sup>1</sup>

HOSIERY may be seamless, full-fashioned, or cut up. Seamless hosiery is knit without seams on a circular machine. Full-fashioned hosiery is knit on a flat-frame machine and consists of shaped or fashioned pieces of selvaged fabrics, which are closed by seaming and looping. Cut-up hosiery, of which very little is manufactured, consists of a knitted fabric cut to shape by shears and then sewed together. Full-fashioned hosiery has an advantage in that it is more elastic and is knit to conform to the shape of the leg and foot, thereby insuring a perfectly fitting stocking. Full-fashioned hosiery is more adaptable to varied designs and ornamentation. The sole recommendation for seamless hosiery is the comfort resulting from the absence of seams. About 20% of all the hosiery manufactured in the country is seamless. Seamless hosiery is peculiarly American, the product of the American idea of manufacturing, namely, speed, production, and cheaper price. Seamless hosiery as a manufactured product had its beginning in America, and its rapid development in a great measure was due to the lack of skilled help needed in the manufacturing of full-fashioned hosiery.

Hosiery may be of cotton, merino, wool, worsted, silk, artificial silk, silk mixed with or plated upon some other yarn, and may be for men, women, children, or infants.

#### *Selling Methods*

Formerly, manufacturers of hosiery sold their entire product to jobbing houses and at the present time [1915] the greater part of the output in the United States is still distributed through that channel. However, manufacturers are gradually getting away from this method of distribution, and each year more concerns are selling direct to the retail trade. This is particularly true in the West, and manufacturers in that section are selling the greater part of their product to retailers. In the East and South this condition is not nearly so

<sup>1</sup> From *Report on Hosiery Industry*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce, Miscellaneous Series No. 31, 1915.

prevalent, and producers of hosiery still depend mainly on the jobber or commission house as a means of distribution.

The cost of selling to the retail trade is very high as compared with the cost of selling to jobbers, and a manufacturer who has been in the habit of selling to jobbers will consider a long time before changing his selling method, on account of the greater expense involved. It takes several years to build up a satisfactory trade with retailers, and during these years the manufacturer must expect small profits. It is necessary to maintain an extensive selling organization and credit system.

Further, in order to reach the retailers successfully the manufacturer should advertise extensively, and this entails a heavy expense. These increased costs prevent small manufacturers of limited capital from attempting to seek the retail trade, and the larger concerns, particularly in the East, which have for years been selling to jobbers, hesitate to revolutionize their entire business by starting a new method of distribution.

Data secured from the 73 hosiery establishments reporting show that of their total net sales 51.04% was made to jobbers, 4.08% through commission houses, 44.83% to retailers, and 0.05% was exported.

The average manufacturing profit on the net sales of establishments that sold more than 50% to retailers is 7.18%.

The manufacturer who sells direct to the retail trade is put to much greater selling expense than would be required to market his goods if he sold to jobbers or through commission houses. Further, he has to manufacture and carry a much more diversified and larger stock of finished goods. He also has to wait longer for his money and undergoes a greater risk of loss through bad accounts.

On the other hand, the manufacturer who sells to retailers receives higher prices for his goods, and once a line of customers has been established he is more certain to hold them than is the case when he deals with jobbers. Besides making larger profits, the producer who sells to retailers has a greater opportunity for expanding and enlarging his business than one who ties himself up with jobbers or commission houses.

One reason why some hosiery manufacturers have not been prosperous during recent years is the large initial expense of changing from selling to jobbers to selling to retailers. In the process of building up a trade with retailers an establishment incurs large expense, and therefore it may have small profits, or perhaps losses, in the beginning,



but after it has established a trade with retailers its profits may be greater than they were when the larger part of its product was sold to jobbers.

The advantages in selling to jobbers or through commission houses are that the manufacturer who sells in this manner is relieved of great expense for actual selling and advertising, is not so liable to losses due to bad debts, and has the advantage of knowing ahead just about what his business for the year will be. Many jobbers and commission houses will advance money to manufacturers, and this is a distinct advantage to the producer who has limited capital.

### *Imports of Hosiery*

The importation of hosiery into the United States consist chiefly of full-fashioned hosiery of cotton for women and socks for children. A small amount of fancy full-fashioned half-hose for men is imported. Most of the hosiery imports are from the Chemnitz district in Germany. The imports of silk hosiery for women are small, practically all that is imported being very high-class hand-embroidered full-fashioned stockings. A large quantity of socks for children is imported. Children's socks manufactured in Europe are knit on a flat machine that permits the making of vertical stripes, as well as the making of all kinds of fancy designs for the top of the sock, which is the principal factor in selling it. The American manufacturer, using the more speedy circular seamless machine, can make only circular and not vertical stripes. This prevents the production of fancy designs. Some cut and sewed hosiery, principally socks for children, is imported. They are made from a knitted fabric, cut by shears, and then sewed together.

The reports of the Bureau of the Census do not show the production of full-fashioned hosiery separately from the production of seamless hosiery. It is known, however, that in the United States the production of seamless hosiery is very much greater than the production of full-fashioned hosiery. A trade directory shows that in 1914 there were in the United States 93 mills knitting full-fashioned hosiery and 647 mills knitting seamless hosiery.

The cost of labor in the manufacture of seamless hosiery is comparatively small, as the circular machines on which such hosiery is knit are largely automatic and are operated by girls, who each attend 4 to 16 machines. For this reason the labor cost is low, and very little seamless hosiery has been imported into the United States under any tariff, including the Act of 1913.

In the manufacture of full-fashioned hosiery the labor cost is higher in proportion to the total cost than in the manufacture of seamless hosiery. As labor is cheaper in Europe than in America, foreign manufacturers of full-fashioned cotton hosiery are able to compete with the manufacturers in the United States.

### *Branded Hosiery*

About 20 years ago a large Chicago retail store introduced the idea of branding its goods, and recently, since advertising has become so important a factor in selling, many jobbers have adopted trade-marks, which they advertise not only to the trade, but to the general public as well. One of the largest jobbing houses in the United States has its hosiery made in about 20 different factories and requires them to put its trade-mark on all these goods. The buying public is supposedly buying a standard product, but stockings made in different factories differ in quality. This method necessarily results in the manufacturer's identity being lost. He will not advertise, for he cannot put his trade-mark on the goods.

The branding of hosiery has resulted in a material change in selling methods. Large manufacturers are gradually giving up selling to jobbers and are devoting their attention to selling to the retail trade exclusively. By selling to retailers they can advertise their own trade-marks, and the public can be benefited by being able to buy standardized products. The public will be benefited inasmuch as the manufacturer's obligations under such a selling system will not end with the selling of the goods to the jobber. A brand being well known means that if the hosiery does not give satisfactory wear the manufacturer gets the blame and not the retailer. Therefore it is to the interest of the manufacturer who turns out branded hosiery to make his product conform to as high a standard as possible. Further, the retailer is benefited, for if the customer gets satisfactory service he will remember the brand and will return as a regular customer, not only for hosiery, but for other lines as well.

### *Comparative Advantages of Different Methods*

In his address delivered before the 1915 annual convention of the National Association of Hosiery and Underwear Manufacturers, Mr. Charles Coolidge Parlin says:

Hosiery and underwear partake of the characteristics of both convenience goods and shopping lines. The cheaper grades—that is, hosiery of 25 cents and under and underwear of 50 cents per garment

and lower—are convenience goods. They are scattered through a multitude of suburban shops and rural stores, and the manufacturer who would secure his maximum market needs the assistance of the jobber.

The upper lines—that is, hosiery of 50 cents and up, underwear exceeding 50 cents per garment—partake of the nature of shopping lines, and the trade in women's lines tends to concentrate into a comparatively small number of cities and into a comparatively small number of stores in those cities, and the higher priced the line, the greater the degree of concentration. The manufacturer of higher-priced hosiery and underwear, therefore, will be able with his own salesmen to cover enough stores to reach the great bulk of his market.

We found for the most part that merchants who sold more than \$200,000 of merchandise a year wanted to buy direct. A man who is buying less than \$100,000 prefers to buy of the jobber; he wants to keep his stock down, and often he is financially weak and leans on the jobber. We estimated that there are 1,140 stores that do more than \$200,000 of business each, and these stores together do 43% of our \$2,094,000,000. The multiple of textile stores that do under \$100,000 of business, we estimated, do 47% of that total. This leaves 10% for the class between. In this class, if a merchant is a plunger by nature he buys large quantities and goes direct; if he is conservative, he keeps his stock down by buying from the jobber.

The conclusion would seem to be that the manufacturer producing low-priced hosiery or convenience goods would find it to his advantage to market his product through jobbing houses, as through this channel a great portion of the convenience stores and shops can be most easily reached with a low selling cost to the manufacturer. On the other hand, the producer of high-priced hosiery or the manufacturer of diversified lines of hosiery would seem to be able to secure best results by selling direct to the retail trade.

### *Trade Abuses*

There are certain trade abuses common to the whole clothing industry which have their effect on the manufacture and sale of hosiery. These evils are cancellations, returns and allowances, requests for deferred shipments, extra dating, special discounts, and so forth. These evils have been prevalent for years, and as time goes on are increasing rather than diminishing. Though all hosiery manufacturers complain of these practices, they have never taken any positive step to eliminate them. While various remedies have been suggested in conventions and associations in the trade, none has ever been put into active practice, because of the lack of cooperation.

Of these trade abuses perhaps that from which the hosiery industry



suffers most is cancellation, by which the buyer has the option of taking or refusing goods which he has ordered. A manufacturer may make a contract to deliver a certain number of cases of hosiery on a certain date, perhaps several months ahead. He will make up the order in good faith, with the full expectation that the contract will be lived up to, only to have the finished goods thrown back on his hands through a cancellation. This practice entails a great hardship on the manufacturer, disturbs his business, and is the cause of heavy losses.

Cancellations have increased because of the fact that buyers are aware that the manufacturers will rarely go to court to enforce a contract. This has led to careless buying, the buyer knowing that in the event of a dull market or other conditions affecting his sales he can always protect himself through a cancellation and throw the loss on the manufacturer.

#### *Distribution of a Hosiery Manufacturer<sup>2</sup>*

The Drury Hosiery Company, located near Philadelphia, had been selling durable low-priced hosiery for men, women, and children for more than a generation. In 1923, 65% of the domestic sales were made to wholesalers, 29% to chain stores, mail order distributors, and buying syndicates, and 6% to other retailers.

The company had added to the variety of styles and colors of goods manufactured until it was producing, in 1923, 30 styles in approximately 25 colors. In women's hosiery there were several grades of soft-combed cotton stockings, hard-twisted cotton lisle, mercerized cotton, pure fiber silk and wool, and silk and wool. There were, for men, styles made of similar materials, and for children four styles of standard durable hosiery were manufactured. The Drury Company did not produce hosiery in fancy patterns. Changing styles, however, made it necessary for it to produce the more staple lines in many colors.

In 1923, 65% of the sales were under the Drury brand and 35% under wholesalers' private brands. Eighty-two per cent of the sales under the Drury brand were made in New York, Pennsylvania, New Jersey, Maryland, and Ohio, and 18% in all the other states.

Wholesalers with large annual sales preferred to sell hosiery under their own private brands.

Early in 1921, when general business depression made it necessary

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<sup>2</sup> From *Harvard Business Review*, Vol. 3, p. 240, January, 1925.



for the company to secure as many orders as possible, it began to sell low-priced, staple hosiery to two chain store organizations. The company also sold directly to several department stores in the two cities in which its sales offices were located. In addition, sales were made to a few mail order distributors and to one or two retail buying syndicates.

During the decade from 1912 to 1922, a change seemed to have taken place in the hosiery trade. Prior to that time, durability and economy in price clearly had been the principal buying motives in the purchase of a large part of the hosiery manufactured by the Drury Company. By 1922, however, a marked change had occurred. At that time there was apparently a much greater demand than formerly for stylish silk and woolen hosiery. In 1922 and 1923, hosiery colors were subject to rapid changes in popularity, such style preferences appearing in the purchase of low- and medium-priced stockings as well as in the purchase of high-grade hosiery.

In order to cope with the existing situation, the sales manager of the Drury Company proposed that the company undertake to make as many sales as possible directly to department stores. There were several objections, however, to this method of distribution. Retailers customarily purchased more frequently and in smaller lots than did wholesalers, the number of customers also would be greater, and therefore, important changes in the sales organization would be necessitated. In selling to wholesalers, furthermore, the Drury Company had not found it necessary to carry finished hosiery in stock. Hosiery was knitted and carried in the gray, but was not dyed until orders were received.

Style risk results from the movement of the style cycle. It is composed of two major elements. The first of these is caused by the danger that the manufacturer, wholesaler, or retailer may make or buy a new style for which there will be no demand. The other element is the possibility of manufacturing or purchasing a larger quantity of a particular style than will be assimilated by the market during the life of that style. Hosiery in medium- or low-priced lines is purchased by consumers who desire to emulate at the lowest possible price those who set the styles. It follows, therefore, that styles in the lower-priced lines lag behind those of higher-priced goods, because styles must be established before the demand in the lower-priced is developed.

In the case of the goods manufactured by the Drury Hosiery Com-

pany, the necessity of getting early distribution is not as great as in the case of manufacturers of style hosiery with a high selling price.

The fact that the Drury Hosiery Company manufactures goods which fall into the economical emulation class makes it possible for the company to assume a minimum of style risk. Since the maximum demand comes late in the cycle, it is possible to forecast styles accurately by watching closely the higher-priced hosiery on the market. Thus, one element of the style risk is eliminated to a large degree, and the only remaining danger lies in producing hosiery of particular styles in too large quantities. This danger, which would be present in any case, could be minimized by redyeing colors which could not be sold, thereby transforming the goods into staple lines.

It is not the function of the wholesaler to assume the style risk, for he has the advantage of neither the manufacturer nor the retailer in forecasting style tendencies. The retailer is directly in touch with the market, and it is in his establishment that first-hand style information must be obtained. The only function which the wholesaler can perform, as far as assisting in style forecasting is concerned, is to carry the information from retail buyers to the manufacturer. This can have no other effect than to slow down the distribution of merchandise and make the likelihood of profit less, because of the probable advancement of the style cycle by the time goods are received by the retailer.

If the wholesaler is required to carry the style risk, he must be paid for it, and since he must also have a profit for it, it follows that retailers who are of sufficient size to buy in large quantities—and it is into this class that most department stores fall—will be forced to pay higher prices to wholesalers than to manufacturers for the same goods.

## LX

### SHOES

#### *Centralization in the Industry<sup>1</sup>*

THERE is a marked geographical concentration in the boot and shoe industry, but no significant concentration of control. In 1914 there were reported to the Bureau of the Census 1,248 establishments in the United States producing boots and shoes as a regular factory product, and 107 establishments making overgaiters, moccasins, and leggings, doing contract work or specializing in certain operations, such as stitching, crimping, or making buttonholes, making a total of 1,355 establishments engaged in what may be called shoe manufacturing industry. Of this total number of establishments, a little more than 40% were in Massachusetts. New York followed with slightly less than 14%, and only one other state, Ohio, had as much as 7%.

Perhaps the best available measure of the relative importance of this industry in the various states is the value of products. Measured by this standard, 81% of the total production in the United States in 1914 was found in six states, these states comprising all those that had 5% of the total value of products or more. In the order of importance, these six states are Massachusetts, with 40%; New York, 13.4%; Missouri, 8%; New Hampshire, 7.5%; Ohio, 6.5%; and Pennsylvania, 5.5%.

There were only six other states that had more than two establishments each. Of the 1,355 establishments, there were 121 found in states that had only one or two each. These 121 establishments produced less than 4% of the boots and shoes manufactured that year as measured by the value of the products.

During recent years there has been a tendency to a growth of large establishments. In 1914, 53.5% of the total value of products was found in establishments of which each had a product value of \$1,000,000 and over, and 96% of the total value of products were found in establishments each having a value of \$100,000 and over, leaving only 4% in other establishments, i.e., those having a value of products

<sup>1</sup> From *Federal Trade Commission Report on Leather and Shoe Industries, 1919.*

amounting to \$100,000 or more each, represented 52% of the total number of establishments. As indicating the extent to which the complete product is manufactured in individual establishments, it may be stated that the concerns making complete boots and shoes had 99½% of the product and represented 92% of the total number of establishments.

### *Methods of Distribution*

In a schedule sent to all the shoe manufacturers of the country they were asked to indicate the channels through which they distributed their shoes. Almost exactly half of the shoes reported by these companies were sold direct to the retailer. A little more than 42% was sold through wholesalers and jobbers. Approximately 2% was sold through stores owned and operated by the manufacturer. It is probable that complete figures from all the manufacturers would show only a slight variation from the above percentages. One or two comparatively important manufacturers that operate their own stores did not make satisfactory reports, and this might vary the figures slightly. The largest manufacturers sell the bulk of their product direct to the retailer. Many of these sales are made upon orders; that is to say, the retailer orders his shoes six months or more ahead of the season and frequently specifies the kind of shoes desired. The regular wholesaler also frequently orders shoes made to specifications. The jobber proper usually handles lots of shoes ordered by merchants but not taken from the manufacturers and also any overproduction that may have resulted from a failure to sell the entire output to wholesalers or retailers.

### *Effect of Styles on Prices*

Style has been a very important factor contributing to the increased cost of shoes to the consumer. This is especially true in respect to women's shoes. In recent years there has been a pronounced disposition on the part of women to give shoes an added emphasis in her category of adornment. The shape of the toe, or the heel, or the height of the shoe, or the color of the leather—sometimes all of these—often is the chief consideration in determining a purchase.

The introduction of new and multiplied styles created a new demand for shoes, especially among women. As just indicated, shoes have become as much an article of adornment as of utility, and with some more so. Styles are continually changing and to follow the fashion,



footwear often is worn not so long as it will give service but only as long as the style is correct. These changes in vogue, both as to shape and cut of the shoe, and as to height, and also as to color of the leather, frequently change twice a year, and it is rather unusual in novelty shoes to find a style that will live more than one year.

From the testimony of dealers it is apparent that this demand created by fashion has great influence in inflating the prices of novelty shoes, which class of footwear constitutes a very large proportion of women's shoes. A shoe merchant is obliged to carry a stock of various styles, and the constant change in these styles results in the risk of having large stocks of goods left on his hands that must be disposed of at a sacrifice when the style is no longer popular. Some merchants go so far as to declare that the advance in the price of women's shoes is principally due to style. Some of these changes in style result in added cost to the manufacturer, to say nothing of the added risk that must be incurred by the merchant. Five or six years ago the average height of women's shoes was probably not more than 6 or 7 inches, while in 1917 and since, the average height is probably from 8 to 9 inches. The cost of colored leather of the more delicate shades is greatly in excess of the cost of leather of black and plain colors of similar quality. Each piece of the upper must be carefully matched, and there is the added expense of waste due to this matching in the cutting of the uppers.

The chief justification for the high prices obtained for women's fancy shoes is the fact of the large stocks that have to be sacrificed when the styles change. It is generally conceded that if fewer styles were made, the public generally would be better off, and the shoe dealer would not be compelled to require what is often considered an exorbitant profit upon fancy shoes in order to protect himself against loss on remnants that are no longer in style. While this is true, there are many retail shoe merchants who claim that their business has been greatly stimulated by the multiplicity of styles. They assert that formerly a woman might have had only two or three pairs of shoes, while now many of them have a separate pair of shoes to match the color of each gown she wears. This has added greatly to the volume of business of the shoe merchants.

(2)<sup>2</sup> The wholesaler, or "jobber," of the shoe has established himself in all the large centers of the country, such as those of New York, Boston,

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<sup>2</sup> From "The Building of a Shoe," compiled by F. H. Nichols, Thomas P. Nichols and Son Company, Lynn, Massachusetts, 1912.

Philadelphia, Baltimore, Chicago, Pittsburgh, Kansas City, St. Louis, and cities of equal importance in the West and South, where he caters to the retailer exclusively. To begin with, the jobber selects his merchandise in the following way: The manufacturer's agent or salesman is started out from the factory with a line of samples that ranges from 50 to 250 in number—according to the variety of styles, methods of construction and grades produced—designed by style experts at the factories, made over an assortment of popular style lasts, and carrying out the very newest ideas in models and patterns.

These salesmen leave early in May with samples, showing styles for the spring demand a year in advance, and in November for the next year's fall and winter trade. The sample line is shown to the jobber's representative, who purchases on such styles as may interest him. In his turn, the latter sends his salesmen with these samples to the retailer, from whom orders are secured. The jobber, having defined his lines, places large orders with the manufacturer, practically covering the season's requirements. Thus it is seen how the manufacturer places the product of his establishment with the jobber, who then sells to the retailer, who in turn serves the consumer or wearer.

Again, some factories have established their own jobbing houses as distributors, thus creating an assured outlet, the methods of buying and distributing being the same.

Another popular channel of merchandising the shoe is the operation of a chain or series of retail stores. These, varying from one or two up to 110 throughout the United States and Europe, and carried on wholly by manufacturing concerns, serve as outlets for their product.

Also, there are large retailers and department stores which are important factors in the distribution of footwear. Certain of these stores have a very heavy purchasing power, and they buy in quantities equal to many of the moderate jobbers.

And yet further, the retailer who prefers to buy direct from the manufacturer is approached by the regular factory retail salesman, who leaves for his trip during the latter part of February for fall business and the latter part of August for the spring business. He carries a very complete line of samples, showing the latest models that have been turned out by the designer. This salesman will consume from 12 to 20 weeks in covering his territory, calling upon the retail trade. The samples are spread or displayed at some commercial hotel or at the retailer's store. There the retailer's attention is directed to the attractiveness of the line and the merits and durability of the

merchandise, and every effort is made to secure the favorable decision. The orders taken are mostly for future shipment; they are for shoes to be made for the retailer, following out and incorporating certain of his ideas as to style, finish, and detail which tend to give individuality to that retailer's merchandise when set forth to the consumer.

More advertising than ever before is being carried on by the manufacturers in their efforts to interest new trade, while the jobber who liberally advertises in trade journals gives unusual attention to the distribution of very handsomely illustrated catalogues showing hundreds of styles in their several different colors. Some of these catalogues are completed at a great expense, costing as high as \$1.50 a copy, but they are mailed free of charge to the interested retailer.

Some manufacturers produce shoes for wholesalers only, some for retailers exclusively, while others manufacture lines of shoes that are branded or named and extensively advertised to the consumer; many of these factories maintain a series of retail stores, although certain branded or named lines can be obtained only through a wholesaler.

### *Exporting the Shoe<sup>3</sup>*

The fame of the American shoe is one of the dominant proofs of its excellent construction. Factories that are equipped with the best appliances in the world and workmen skilled in their operation have produced shoes that today stand every test, and for which there is a constant demand from many foreign countries.

A continued call for the American-made shoe from abroad signifies an added success and triumph to those already attained here at home. This has been brought to pass only within the past 20 years, for previous to the year 1890, very few shoes were exported from the United States to foreign countries, with the exception, possibly, of those shipped to Canada. But during the following 10 years, an extensive business was gradually built up, the goods being exported mostly to Great Britain and Germany.

Some of the earlier shipments were not up to sample, which for a time resulted in making it very hard for America to increase her exports to these countries. For several years the Germans especially were very suspicious of American shoes, and it was extremely difficult, even for those having first-class goods, to find a market for them either in Great Britain or Germany. When dealers in both places, however, found certain manufacturers were shipping goods to them which were fully

<sup>3</sup> From "The Building of a Shoe," *op. cit.*



up to sample and vastly superior in style to their homemade goods, it was not long before a large export business was being done by several firms with Great Britain and throughout Germany.

This business has gradually extended until American goods are now found freely distributed throughout France, Austria, Switzerland, Italy, Egypt, South Africa, a few even finding entrance into other countries.

The large increase in this business within the last 15 years can be ascribed largely to two causes. First, the styles greatly superior to those of the goods made in these countries, and secondly, the fact that in some places, at any rate, it has been customary up to the time of the introduction of American shoes in considerable volume to make no half-sizes. The American plan of making all shoes in half-sizes as well as full sizes resulted in much better fitting shoes, worn with greater comfort, and preserving the shape better when worn.

Many of the lower-priced shoes have been introduced into foreign countries by salesmen from the United States locating at some central point and thence reaching out to other cities and countries within traveling distance. The largest and most successful export business, however, has been done by the opening of special stores for the sale of the product of some one manufacturer, this being confined, however, to shoes of high grade.

#### *Shoe Advertising<sup>4</sup>*

There is today no field that offers greater opportunities for forceful publicity than that of the shoe industry. Competition is remarkably keen in this business, particularly so among the representative houses, who practically exert a controlling influence in shoe retailing.

Specialization is the commercial tendency of the present era. It gives to the consumer the greatest possible value at the least possible cost. The manufacturer, by devoting his entire energies to the production of one specific grade of shoes, reduces individual cost, increases production, and attains perfection. The unquestioned wisdom of this policy has been truly exemplified in the phenomenally rapid growth of certain lines of specialty shoemaking. The specialty business is now practically in its infancy, and its growth is curbed only by the conservatism of a few of the leading eastern manufacturers. It is the manufacturer's first duty to get his goods into the retailer's hands, and quite another problem to move them out again quickly and advantageously. Here is where forceful publicity must be applied, persistently

<sup>4</sup> From F. H. Nichols, *op. cit.*



and convincingly, so that it will appeal to consumers and attract them to one's goods and away from the product of his competitors. No matter how good the shoes may be, they would likely remain upon the dealer's shelves if the demand were not created among the consumers.

### *Retail Shoe Marketing*<sup>5</sup>

Many stores, of course, sell all three grades of shoes (low-priced, medium-priced, and high-priced), but in nearly every store one grade tends to predominate. A successful shoe store, in other words, handles chiefly merchandise that represents a certain standard in price, service, and quality and caters to a certain fairly definite class of trade. In fact, the more firmly a well balanced policy is established, with definite standards of price, quality, and service, the greater is the individuality of the store and the better are its chances of long-continued existence. It builds up a clientele which becomes one of its most valuable assets. Except in small communities, where there is little difference in the quality of goods and services demanded, a retail shoe store can seldom build up a reputation on more than one grade of merchandise. It is known either as a low-price store, a medium-price store, or a high-price store, and it draws its patronage from people who wish to buy shoes of one of these grades. The customer who wants to buy medium-priced shoes, for example, seldom goes to a low-price store or to a high-price store. The tendency toward concentration is so strong, furthermore, that when a store has once established a reputation for a certain grade of merchandise it can shift to another grade only with difficulty, because such a shift involves building up a new clientele with the probable loss of many of its old customers. In the successful shoe store the whole arrangement of the store, its window displays, and its selling methods are adjusted to the standard of service called for by the trade to which it caters.

### *Sources of Supply*

Though in the retail shoe trade direct buying from manufacturers is common, the wholesaler is an important factor. The wholesaler serves primarily the small retailers in cities and the general merchandise stores, neither of whom can give large orders. The general merchandise stores are usually located in the country districts in sparsely settled territory where the volume of business is not sufficient to warrant the manufacturer in sending his salesman. In some cases a wholesaler obtains busi-

<sup>5</sup> From *Management Problems in Retail Shoe Stores*, Harvard University Bureau of Business Research, Bulletin No. 10, 1918.

ness by giving financial assistance to men who wish to engage in the shoe business, and this financial assistance is conditional upon the control over the purchases of the retailer. Some manufacturers are also said to follow this policy. In addition to this business, wholesalers also have a considerable volume of trade in "fill-in" orders from retailers who purchase part of their merchandise direct from manufacturers. When a retailer cannot wait for delivery of additional stocks from the manufacturer, or when he wishes to buy in small quantities, he sends a "fill-in" order to the wholesaler.

In the proportion of orders given direct to manufacturers by retailers, the shoe trade is sharply in contrast with the grocery trade. The retail grocer carries a great variety of merchandise in small, assorted lots. Consequently, the average retail grocer buys chiefly from wholesalers, and the trade is not seasonal. In the shoe trade, on the other hand, large orders are given at the beginning of each season. Each order, because of the necessity of buying a variety of sizes and widths in each style, is large enough in many cases to be economically handled by a manufacturer.

Some manufacturers also operate stock departments, through which they carry on a wholesale business; some also handle the shoes of other manufacturers. Direct sales, finally, have doubtless been increased through the policy of certain manufacturers of branded shoes to sell through exclusive retail agencies which, in many cases, handle the product of only one manufacturer. In such cases the orders are, of course, sent directly to the manufacturer.

The tendency to buy from fewer and fewer sources is most noticeable in stores selling medium-priced shoes and least noticeable in stores selling high-priced shoes. This is probably due to the fact that the stores selling high-priced shoes commonly feature novelties and therefore seek a wider variety of styles. It is stated that during the last ten years shoe retailers have been concentrating their purchases more and more.

#### *Buying from Travelers, by Mail, and by Visits to Manufacturing Centers*

A shoe retailer gives his first orders at the beginning of each season to traveling salesmen of manufacturers or wholesalers. Somewhat over half of the stores send in their reorders and "fill-in" order by mail. Initial orders, however, are very seldom sent by mail, and even reorders are frequently placed through the traveling salesmen who visit the store.

There is practically no difference between the most successful and the least efficient stores as regards the proportion of their merchandise bought through travelers, by mail, and by visits to the primary markets—the manufacturing centers.

The retailer who visits the primary markets or who sends his buyer to the primary markets is generally seeking to learn the style tendency. By looking at the lines of leading styles of manufacturers and inspecting stocks of shoes and garments displayed in the leading stores in style centers, he forms an idea regarding which styles are likely to be popular. Women's shoes vary in height, color, pattern, and material according to the length, shade, and style of garments, so that general style tendencies have a vital bearing on shoe styles. The practice of visiting primary markets, therefore, is chiefly found among the large stores featuring style novelties.

While the proprietor of a successful small or medium-sized business of course tries to meet the demands of his customers, he realizes that the bulk of his demands will not be for the extreme styles and that he cannot afford the risk of loss through depreciation which is involved in handling novelty goods. By confining his business to supplying lines and styles that are well established, he occasionally loses a few sales to customers who demand novelties, but he protects his profits and keeps on hand merchandise that is worth at least approximately what he paid for it.

It is seldom that a retailer with a volume of business of less than \$30,000 visits the primary market to buy merchandise. Not only are the periodical trips too expensive for him, but he can learn quite satisfactorily from the traveling salesmen what styles are to be popular for the trade to which he caters. His demand is not primarily for the newest style but for styles already established, for he cannot by himself introduce new styles or successfully carry a stock of extreme styles of any sort. He must follow the few stores that are recognized as style leaders after certain styles have become well established by them. An agent of the Bureau found one store that was just going into bankruptcy because of the proprietor's failure to realize that fact. This case is probably typical of many others constantly recurring throughout the country. This particular retailer, having a call from two or three customers for a certain shoe of an extreme style shown by large stores, would immediately order a stock of those shoes. He would receive the stock just in time to sell a few pairs before the demand for the novelty fell off. He, of course, then had a considerable quantity of these shoes



left on his hands to be sold at far less than they had cost him. He had repeated this process so frequently, in his desire to emulate the big down-town stores, that the profits from the sale of shoes in stable and well established lines were lost through the depreciation of the stock of novelties.

One-half of the most successful stores state that at the beginning of the season they order less than 35% of the estimated season's purchases. Over two-thirds of the less efficient stores, on the other hand, place much larger initial orders. The poor showing of this latter group cannot, of course, be attributed entirely to their buying methods, but the facts seem to indicate clearly that their buying policy is at least partially at fault. There is a limit, of course, below which the initial orders cannot advantageously be reduced.

By buying moderately on the first order and then watching their sales and stock closely, the best retailers most surely guard against the accumulation of slow-movers and dead stock.

### *Cash Discounts*

Cash discounts are offered to a retailer by a manufacturer or wholesaler for the prompt payment of bills. These cash discounts range from  $\frac{1}{2}$  of 1% to 10% for payment within a specified time. The cash discount period, or the time within which payment has to be made to secure the discounts, is generally 10 days from the date of the bill. A cash discount of 2% or 3% in 10 days is the ordinary rule in the shoe business. The credit period, or the time within which the retailer is expected to pay the bill if he does not take the cash discount, is from 30 days to 6 months. In general, however, the terms are 30 or 60 days. The differences in the rate of discount and in the time allowed for payment vary according to the size of the order, the financial responsibility of the retailer, and the credit policy of the individual manufacturer or wholesaler.

### *Delivery*

Delivery is much less important in the retail shoe trade than in the retail grocery trade, for instance. A very large percentage of customers have always carried home the shoes which they purchase. This is especially true in stores selling low-priced shoes.

### *PM's*

PM's are a device widely used by shoe retailers as a premium to the salesman for selling slow-moving stock. A retailer finds that he has



perhaps half a dozen pairs of light gray shoes that are going out of style; or, he may find he has a number of pairs of AA width in a style for which there is now little demand. He wants to get rid of these before they become entirely unsalable. In order to interest his salesmen in selling these shoes, he offers a premium on each pair to the man who can sell them. This premium or price is known as a *PM*.

*PM's* vary widely, ranging from 5 cents to \$1 a pair; 10, 15, and 25 cents are the most common figures. Practically all the dealers relying upon *PM's* claim that, when properly supervised, they are the best method of moving slow sellers, odd lots, and old styles, thereby keeping the stock clean and reducing left-overs. In many cases they say that this is the only way to move such stock.

#### *Clearance Sales*

Eighty-five per cent of all shoe stores report clearance sales, and a very large proportion of these sales are held in January or February, the months in which inventory is taken. Many stores have a second sale either in July or August, at the end of the spring season, whether or not a semiannual inventory is taken at that time. A few stores report such sales in the latter months only. Clearance sales in other months are very exceptional, for it is only at the end of a season that there is occasion for disposing of large quantities of odds and ends and novelty styles.

#### *Cash and Charge Sales*

A large amount of the business of the low- and medium-price shoe stores is for cash. Of all the stores selling low-priced shoes, 38% do an entirely cash business; 20% of the medium-price stores and 15% of the high-price stores sell only for cash. The proportion of cash sales to credit sales, however, is high in most stores in all grades.

#### *Advertising in Retail Stores*

The mediums and devices used for advertising in shoe stores are numerous and diverse. They include window displays, newspapers, free repairs and lacings, circular letters, trading stamps and premiums, billboards, and less frequently, novelties, such as buttonhooks, shoehorns, calendars, and other special features. About three-quarters of the medium-price and high-price shoe stores state that they advertise in newspapers, while only a little over half of the low-price stores use that form of advertising, a contrast due very likely to the smaller volume of

business in many of the low-price stores. About 40% of the stores selling low-priced shoes report that over half of the money which they spend for advertising is spent for newspaper advertising. In about 60% of the medium- and high-price stores, one-half of the advertising expense is for newspaper space.

### *Stockkeeping Problems*

An increasing number of retail dealers are employing a permanent system of stock records, furnishing properly correlated information about their sales, stocks, and orders. These are chiefly retailers managing stores in large cities.

### *Recent Tendencies of the Shoe Industry*<sup>6</sup>

Style, the automobile, and the growing economic independence of women are three forces that are profoundly influencing the development of the shoe industry. A pronounced shift from men's to women's shoes as the more important branch of the industry has occurred during the past decade. The output of women's shoes has come to exceed that of men's by nearly twenty million pairs. It is estimated that 40% more women's shoes are sold now than ten years ago, which, allowing for growth in population, means an increase of about 30% in per capita consumption. The output of men's shoes, on the contrary, has declined 12% since 1914, and in view of population growth, the per capita decrease is even greater.

The cause of the drop in production of footwear for males is alleged to be the automobile. Men's shoes, it is said, are now better made than they used to be, but the real explanation of their longer wear is held to be the motor car's reduction of walking to the barest minimum.

Style has been such a conspicuous success in increasing sales of women's shoes that manufacturers are endeavoring to introduce it in men's shoes. Advertising to feature the slogan adopted, "Shoes for the Occasion," will aim to make the man self-conscious in the matter of footwear, and publicity campaigns to popularize walking are expected to increase the consumption of men's and women's shoes. Style influences in a measure have filtered through to men's shoes in various indirect ways and wrought changes worth notice. Men's work shoes are lighter, more flexible, and more attractive in appearance than in former days in response to a demand for better looking footwear. Men's lightweight shoes for summer wear, formerly restricted to the highest class trade, are being made at medium and lower prices. Today at least three-

<sup>6</sup> From *Commerce Monthly*, June, 1926.

fourths of the men's shoes sold are oxfords, and the market for high shoes constantly grows smaller.

Introducing new patterns is costly. For instance, one manufacturer is said to have launched 500 models, of which only 12 were successful.

Time required for machine and handwork has been reduced, and shoes ordered by a retailer can be delivered within less than a month.

The emphasis on novelties has necessitated marked changes in merchandising, both of the raw material and the finished output of the industry. In the old days there were two selling seasons each year, spring and fall. Retailers bought goods for three to six months' supply, and the manufacturers purchased leather on the same long-time basis. As style varied but little from one season to another, leather requirements were fairly well standardized and heavy losses from sudden changes of fashion were improbable. This situation has been changed, and the old seasonal buying has practically disappeared. Salesmen now make selling trips every month or six weeks, as retailers soon learned that heavy purchasing of styled shoes involved too great a risk. If sales did not measure up to their expectations, through a change in style they were left with stocks that had to be sold at heavy sacrifice. Uncertainty of style and the close buying necessitated thereby have advanced direct manufacturer-to-retailer buying.

Hand-to-mouth buying has become more and more usual, until few retailers buy more than a month ahead of their requirements. This has revolutionized leather buying also, since shoe manufacturers now purchase supplies in limited amounts only after they have their orders in hand. Style in leathers is as important as the cut and design of the shoe last and fluctuates quite as unexpectedly. Hand-to-mouth buying in the shoe industry, of course, is not due solely to changing fashions, for it is found in industries unaffected by the vagaries of style and cannot be regarded as a passing phase of commercial life. However, the new conditions require a flexibility in operation unknown in prewar days and demand closest study of distribution as well as of manufacturing problems.

#### *Effect of Low Shoes<sup>7</sup>*

The custom of wearing low shoes throughout the year, which has now become almost universal, has opened up a much wider field for overshoes and is largely responsible for their increased demand. Formerly these sold only in certain localities and when weather conditions

<sup>7</sup> From *Commerce Monthly*, May, 1927, p. 28.

were unusually bad; now they are in general demand during the whole winter season. This demand has been stimulated by the transition of the galosh from a strictly utilitarian overshoe used by comparatively few people to a popular, colorful, and attractive novelty. Sales of footwear during 1926 figured prominently in the financial reports of many rubber companies, accounting for a large part of the profit reported and balancing the losses suffered in the tire trade.

The heavy demand for gaiters has naturally cut the trade in light rubbers, but the development of a rubber with a partly adjustable or semi-rolled edge to fit several lasts of leather shoes has proved a genuine boon. Improved markets for other kinds of rubber footwear have developed in recent years. The widespread participation in sports and athletics has greatly stimulated the trade in many lines, such as leather-top lumbermen overs for various winter sports, light-weight boots for fishing, tennis shoes, or "sneakers," for tennis, baseball, basketball, and similar sports. Industrial demand has also grown steadily, particularly by such users as the oil companies, coal miners, and railroad employees.



## LXI

### AUTOMOBILES

#### *Early Methods*<sup>1</sup>

WHEN a motor car was produced that was more efficient than the horse, every man, woman, and child wanted one. No demand had to be created. The only problem was manufacture. In that day the manufacturer could make what he pleased; a car built on any mechanical principle and with almost any appearance could be sold if only it would run.

To distribute the product, a retail organization was hurriedly created, the men for this organization coming chiefly from three sources—bicycle men, nephews of rich uncles, and business men seeking new connection.

Nor was capital in this early day attracted to the retail automobile business, for to many the industry seemed to be but a passing fad. Fortunately, not much capital or experience was needed at first, for eager customers put up deposit money with the dealer, and anything the dealer bought he promptly sold.

In that day the dealer bought and sold whatever he pleased. If he were a bicycle man, he looked over the mechanism of a car and said, "This is the best car; I will recommend it to my community." If he were a nephew, perhaps he went to New York, was entertained at the Show, and said, "This company is the best group of fellows; I will buy their product." In either case, he succeeded in moving the product on the strength of his own recommendation.

But by the year 1913 the supply had caught up with the demand in all grades of cars down to the \$2,000 mark, and in 1914 pretty well down to the \$1,000 mark.

When the supply caught up with the demand, three radical changes occurred: First, the consumer was found to be a different person from what he was supposed to be. He had been thought an easy spender; otherwise, he would not part with so much money so easily. Now

<sup>1</sup> From Charles C. Parlin, manager of the Division of Commercial Research, Curtis Publishing Company, "The Merchandising of Automobiles," an address to retailers, Philadelphia, 1915.

it was found that he was a successful business man, because the successful business man could best afford to buy and maintain a car.

In the early day the consumer was in a panic to buy, and he put up \$250 to stand in line for an opportunity to bid on a desired car. But when the supply caught up with the demand, the consumer got over his panic. He said, "Let us pause and consider."

Ordinarily, man is not a shopper; if he goes into a store to buy an overcoat, he is likely to buy one even though he is not fully satisfied. But the price he has to pay for an automobile puts the purchase in the class with investments. Hence the purchaser began to apply his business wits, and often succeeded in getting a concession.

Second, it developed that the manufacturer could no longer make what he pleased. The consumer could select and reject, and the manufacturer who attempted to use a rejected mechanical principle or to retain a passé style found his product unsalable. In fact, he found that his problem was now not merely a problem of manufacture, but, above all else, a problem of selling.

Third, the retailer, in turn, found that he could no longer sell what his own judgment dictated. He must sell what the consumer wanted.

It is an interesting fact that in almost every city of the United States the order of sales of automobiles in that city, so far as the leading eight or ten cars are concerned, is substantially the same as the national order of sales. If at a sales convention 100 automobile dealers from different parts of the country were to make lists showing the order of sales in their community for the leading ten cars, those lists would be nearly identical.

This means that the influences now selling automobiles are essentially national influences rather than local. These national influences are:

1. The merit of the product;
2. The strength of the national advertising;
3. The efficiency of the sales organization, national and local.

The local dealer is an important factor. He performs important functions in finding prospects, closing contracts, rendering service, and in building for his company a sound business reputation in his community.

But the dealer, unless backed by a company that has a strong national reputation, cannot do justice to himself or to his company. If the dealer could create sales by his own efforts alone, one car would

be found to be strong in one community and a different car strong in another community. The fact that the same companies are strong in nearly all communities shows that a dealer, to secure results, needs the assistance of national influences.

On the other hand, the manufacturer can sell his cars only by the hearty cooperation and aggressive work of his local sales organization. Upon the local salesman must devolve the actual work of closing contracts and moving the product—important work worthy of the efforts of strong men backed by substantial capital. Upon the national sales organization, in turn, devolves the duty of selecting agents, of assisting them with sales suggestions, and of backing them with strong national advertising.

#### *Present Methods*

It came about that a complete revolution in selling methods took place when the supply caught up with the demand. In the early day:

1. The manufacturer made a car that would run;
2. He got a retail organization;
3. The retail organization pushed his product out to the consumer.

At the present time:

1. The manufacturer makes what the consumer wants;
2. Through national advertising he convinces the consumer that his car is what the consumer wants;
3. As a result of the strength of his national proposition, he gets a retail organization.

That is, a retail organization today is the result rather than the cause of the sales demand. But that which is the result becomes, in turn, an effective influence. A strong retail organization contributes powerfully to upbuilding the strength of the national proposition. Hence we have a cycle of result and influence, making constantly stronger the strong companies and eliminating inevitably the weaker ones.

Thus it has come about that strong dealers and strong companies, for purposes of mutual self-advantage, have tended to gravitate together. Perhaps in some territory an exception to this rule may still be found, and some dealer, because of his powerful standing in his community, may still be successfully selling an unknown car; but if such a dealer exists, he is smart enough to know that he could make

even more money if he had the agency for a popular car. He wants a better agency.

Every manufacturer wants the best dealer, and hence whatever exceptions today exist to the rule that the strong dealers and the strong companies have come together are likely soon to be removed.

But some manufacturer with small production may say: "In my experience, on the contrary, I find that the local agent is the key to the situation. Where I have strong dealers, I have good sales; where I have weak dealers, there are few sales. My only problem is to get more strong dealers."

This manufacturer only states the weakness of his position. He is depending on the merchandising methods of the past, which can no longer endure. Unless he develops a definite consumer demand for his cars, his strong dealers will slip away from him and no other strong ones can be found to take their places. The manufacturer will find himself stranded without a demand from the consumer and therefore without retail outlet.

Profits in the retail automobile business depend on price maintenance and volume. When one inquires about the difficulties in automobile retailing, one dealer says that in his community prices are cut; another states that too much free service is given; a third complains that too much is allowed for second-hand cars; a fourth asserts that it is the custom to throw in extra tires or other accessories.

These are all phases of simply one trouble, for which there is but one solution. The one trouble is price cutting, direct or indirect. The one solution is to have a sufficient consumer demand for a particular car, so that the consumer will pay full price for that car in preference to buying a competing car at a cut price.

To obtain a profit, therefore, a dealer must first of all get his list price. If he starts price cutting, there is no bottom. The men who buy cars are successful merchandisers and they are in business not merely for money but for the love of the contest. If John Smith can get 5% reduction, he is pleased, not merely because he saved \$100 but because he beat the game. The chief satisfaction that he gets from the reduction is when he whispers to Henry Jones, his neighbor, that he was clever enough to get 5% off. Henry Jones says to himself, "If John Smith can get 5% off, I can get 7%," and the automobile dealer, having once started to let down the bars, finds it impossible to stay the price-cutting assaults of the best mercantile brains of his community.



Hence, to make a profit a dealer must first of all get full list price, which means that he must have the agency for a car which is sufficiently in demand to make it possible for him to sell at list price, even though a competitor offers a cut.

Manufacturers may be divided into two classes; utilities and style goods. Utilities comprise all those machines and articles which are bought solely for their efficiency or intrinsic qualities; for example, wagons, plows, sheeting, sugar. Style goods comprise all those articles that outwardly express a man to his neighbors, such as clothes, carpets, draperies, and motor cars.

The manufacture of a utility may be monopolized; for if any manufacturer produces a utility that gives greater value or service for the price than any other, theoretically everyone will buy it. But, practically, however efficiently one manufacturer can produce, some other manufacturer can produce near enough to his standard to be a competitor; and practically there is a value in a name and there are differences in consumers' opinions. Hence, as a practical proposition, the theoretical monopoly is seldom attained, unless the manufacturer controls a raw material or is protected by patents or other exclusive concessions. But the manufacture of a utility does tend to concentrate, until a small number of concerns, four, or six, or eight, controls the great bulk of the output. Plows, for example, were once made by a multitude of village factories. Today, a few large companies make nearly the entire product.

But in the creation of style goods monopoly is impossible; for, since style represents the owner's personality, there must be a variety of styles to represent various personalities.

The operation of the style factor may be illustrated from the clothing field. A certain motive dominates for a time, but under that motive there are many variations of detail and patterns. The individual must first show obedience to social requirement by accepting the motive and then must assert his individuality by selecting a variety that is not too common. To refuse to accept the motive brands him as non-social. To accept identity, brands him as devoid of individuality.

In women's styles, changes are kaleidoscopic, and the individual variations are marked. In men's clothing, changes are less frequent, and individuality is denoted by pattern and minor detail. But in every style line there are two inherent characteristics:

1. The domination of a type for a limited time;
2. Variety within that type.

The pleasure car involves the style element; for the pleasure car is the traveling representative of a man's taste or refinement. Few people see the kind of carpets or draperies we have in our homes, but everyone notices the kind of a car we drive, and a dilapidated pleasure car, like a decrepit horse, advertises that the driver is lacking in funds or lacking in pride.

Applied to pleasure cars, the style element dictates that changes must be made from time to time in those features that determine the appearance and "talking points" of a car.

Style in the automobile means more than paint, upholstery, and body lines; it includes all those elements which are the subject of arbitrary preference. If, for an example, the number of cylinders in a car is selected on the basis of efficiency or cost, the number of cylinders loses the style element and becomes merely a part of the mechanism. But whenever a man selects his number of cylinders merely as a question of preference, to keep up with his neighbor, to have something to talk about, to please a fancy, with him the number of cylinders presents the phenomenon of style purchase.

Within any given class, a manufacturer cannot get and permanently hold much more than 50% of his market; for a style reaction automatically sets in against anyone who controls a majority of a style market.

Because of this style element, many makes of cars are required in order to represent the varieties of individuality. In the first place, as there are different lengths of pocketbooks, there must be different prices of cars. While one man can pay only \$500, another man is anxious to pay \$5,000.

At the present time we have five fairly distinct grades of automobiles. Since the problem of manufacturing and selling in each grade is different from that of each of the other grades, it is difficult for a manufacturer to deal successfully in more than one grade. Hence the five groups of manufacturers are likely to remain distinct.

In the second place, we are likely to have several manufacturers in each of these groups. Since a reaction automatically sets in against any manufacturer who gets more than 50% of a style market, theoretically three producers are required in every grade of a style article. Practically, there are likely to be six or eight producers in each class, and there seems, therefore, to be a manufacturing opportunity for 30 or 40 automobile concerns.

A style clean-up is a regular phenomenon in all style lines, and the

only way in which goods that are becoming passé can be sold is by price cutting. But in the automobile industry the style clean-up sometimes operates with unusual violence.

The direct loss may be disastrous. If an automobile manufacturer makes a reduction of \$500 per car on 500 cars, he has lost a quarter of a million dollars, and that may throw him into bankruptcy.

If the manufacturer takes a loss, the dealers also will have losses running into such large sums that they are likely to be forced into bankruptcy and the retail organization may be shattered.

The consumer market is disrupted in the automobile field more than in other style lines.

### *Trade-ins<sup>2</sup>*

As part of the transaction, the dealer must usually purchase an old car from his customer. If he represents a leading standard make, he has no "trading allowance" from the factory for this purpose. In order to attain volume production, the manufacturer exerts every effort to see that his car is delivered to purchasers at the lowest possible price. Discounts in the automobile business are smaller than those in many other lines, and the selling price of the car is fixed by the factory. The merchant's gross profit is therefore rigidly restricted and he must buy each used car with great caution.

It is easily possible for an automobile dealer to lose his entire profit on the sale of a new car by an overallowance on a used car. As a matter of actual fact, statistics show that the average automobile dealer gives away to his customers in used car losses a larger proportion of his gross profit than he finally retains for himself in the form of net profit.

When he has sold a new car, the automobile dealer's profit is largely or entirely tied up in a used car. Before he can sell the used car, he must spend money reconditioning it. Storage charges and interest increase its cost to him each day. Then he must pay out more money to advertise it and pay a salesman for selling it. In many cases a used car is traded in on the purchase of a used car, so that three or four automobiles are sold before the dealer knows whether or not he has made a profit on his original new car sale.

Years ago, trade-ins were rare, but the percentage to total sales has increased steadily. This means that the dealer must be an ever keener business man.

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<sup>2</sup>From article by James M. Cleary, "Sales Rivalry Knots Problem of Auto Dealer," *Chicago Sunday Tribune*, January 30, 1927.



New car selling is one business. Used car selling is a second. Service selling is a third. In all of these the dealer must be proficient. With every car the dealer is expected to give some free service which cuts into his discount in a way unknown to merchants in many other lines.

### *Installment Sales*<sup>3</sup>

That the automobile industry was a leader in the marked expansion of installment sales during the last 12 or 15 years is generally realized, but it is a matter for surprise to many to learn that this leadership has definitely passed.

Latest statistics, according to B. E. Hutchinson, vice-president and treasurer of the Chrysler corporation, indicate that the recent annual totals of automobile sales by this method have been barely keeping even with the amounts of former years.

"Figures indicate that if there has been any increase in installment sales of automobiles during the last two or three years it has been very small," says Mr. Hutchinson. "As a result of the general price reductions throughout the industry, the amount of installment paper outstanding at the end of 1925 was probably not much, if any, larger than the amount at the end of 1923, in spite of production increases in those years."

### *Automobile Shows*<sup>4</sup>

(1) No automobile manufacturer would think of passing up the automobile show, for here he can feel the pulse of the public and measure its response to new models.

Interest focused on the annual automobile show is the best assurance that it has become an event of real importance in the minds of the public. Only at the show can the car owner or prospective owner see the finest achievements of practically every manufacturer side by side.

(2)<sup>5</sup> Seldom do women buy a motor car, but hardly any man makes a choice without consulting his wife and getting her approval.

Woman's influence in the choice of cars has been directly related

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<sup>3</sup> From "Installment Plan Fails to Keep Pace with Motor Sales," *Chicago Sunday Tribune*, January 30, 1927.

<sup>4</sup> From article by C. A. Triphagen, "Show Affords Buyer Chance to Compare Cars," *Chicago Sunday Tribune*, January 30, 1927.

<sup>5</sup> From article by George H. Bird, "Women Play Big Part in Selection of Motor Models," *Chicago Sunday Tribune*, January 30, 1927.



to the growing tendency to drive cars. There was a time when women were not a factor, because the earlier cars required almost the strength of a truck driver to handle, and cars of those days frequently gave mechanical trouble.

You sometimes hear that women leave the mechanical side of the selection of the automobile to the male members of the family. But do they? Let's see how that works out. We will admit that a woman does not study a car's specifications, and that they may mean little to her. But suppose, as usually happens, that she takes a demonstration. Of course, she will want to drive the car herself. That, in fact, is the main reason she asks for a demonstration.

#### EXAMPLE OF ONE COMPANY'S MARKETING METHOD<sup>6</sup>

When a person reads that the Ford Motor Company is building 2,000,000 cars a year and that next year's production will probably be greater, it is only natural to ask, "Where do they all go? Who buys them? How can the company market so many?" This is easily explained. The Ford Motor Company has a sales organization fully as remarkable as its manufacturing organization. The market is the whole world. There are over 52,000 sales and service dealer connections throughout the world, 38,000 of which are in the United States. There are over 30,000 retail Ford salesmen in this country.

Mr. Ford's aim is to keep all his plants running the year around, with no lay-offs or shut-downs. This can be accomplished only if sales keep pace with production. The Ford sales program is as carefully planned as any other work in the Ford industries, and the same general principles are followed all over the world.

In the United States there are 35 Ford branches, each supervising the sales activities of all the dealers in its territory. Over 600 road men, some of whom have charge of a zone, and some of whom are specialists, travel out of these branches. They are held responsible for the sales in their respective districts. Therefore, every road man makes himself a part of each dealer's organization under his supervision. He holds sales meetings, lines up service, helps with banking connections, calls on garage men in view of appointing them service dealers, and makes every dealer's problems his own.

In the United States, all Ford dealers work in open territory, and no

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<sup>6</sup> From *The Ford Industries*, Ford Motor Company, Detroit, 1924.

exclusive territorial rights are given. This policy has resulted in a tremendous increase in sales, as it has led to more intensive work.

Every dealer reports to his supervising branch every ten days, giving an accurate picture of his sales situation. These reports are compiled and relayed to the Highland Park office. All these dealer reports are charted and studied in connection with other commercial information, and the production schedule is calculated accordingly. The accuracy with which these forecasts are made is rendered possible largely because of the public's acceptance of Ford products as staple merchandise, whereby the Ford enjoys a staple product's steady demand. By getting a true survey three times a month, the sales and production program may be carried out without guess-work and the schedules arranged for months ahead of production. The flexibility of the branch plants and the excellence of the traffic department, which controls all shipping, make it possible to take care of emergencies as they arise, and the element of chance is minimized.

In the tractor field the Fordson has made mammoth gains. January 1, 1921, the Fordson represented 48% of the tractors on American farms. By May 1, 1923, this figure had jumped to 78%, not including industrial tractors.

Ford business outside the United States is handled on the principle of direct representation through large organizations located at strategic trade centers. These are in no sense transplanted American branches, but are separate companies organized in accordance with the laws of the country in which they are located, and a distinct part of its business and economic life.

Every country in which the Ford is marketed presents a different sales problem. There are many things to be considered: topography, road conditions, foreign exchange, wage standards, automobile taxes, fuel prices, import duties, transportation charges, and the general social, political and economic situation.

In the United States, a workman by saving one day's wages a week is soon able to own a car. In some countries his total income for several years would not buy one.

There is keen competition, too, from cycle cars and the small, light cars of low horsepower, designed only for good roads and light work but which will run many miles on a gallon of fuel. In countries where the motor car tax is based on horsepower, the Ford is under a handicap in comparison with the 8- to 15-horsepower cars in common use. Nevertheless, Ford sales continue to increase steadily, a striking proof that

Fords are bought because the public realizes the inherent quality of the product and appreciates its low upkeep costs.

The method of establishing sales and service dealerships and the merchandising organization of the various Ford companies abroad is very similar to the scheme followed in the United States, except that national boundaries are sometimes crossed. In every country the Ford wage scale is considerably above the average.

Ford assembly or service plants are located in the following countries: Argentina, Belgium, Brazil, Chile, Cuba, Denmark, England, France, Holland, Ireland, Italy, Sweden, and Uruguay. The American factory branches at Houston, New York, Los Angeles, and San Francisco also care for a certain amount of overseas trade. With the exception of the Sao Paulo and Santiago branches, all the Ford plants abroad are located at seaports and shipments may be made by boat.

#### SALES OF ACCESSORIES<sup>7</sup>

Originally, cars were sold "unequipped," but gradually motor car manufacturers added equipment, and certain accessories that seldom needed to be replaced, such as lamps and windshields, were obliged to seek their markets almost exclusively through motor car manufacturers.

Makers of accessories which are sold to manufacturers either must sell on price competition with a constantly shrinking margin of profit and face extinction, or they must through national advertising create a consumer demand.

Makers of other accessories for which reorders are frequent, such as tires and spark plugs, found with the growth of the industry that the consumer market presented the major opportunity, but that sales to manufacturers also offered an important market.

As the number of manufacturers decreased, and each took a larger share of the output, the sales problem assumed new aspects. On the one hand, the large manufacturer insisted on price concessions. On the other hand, the manufacturers' market offered an increased outlet for factory surplus and also offered advertising opportunity.

Hence it was natural that prices to manufacturers should tend to fall to cost of production and that the market to the consumers should be made to carry most, if not all, of the margin of profit.

Automobile accessories and supplies, viewed from a merchandising

<sup>7</sup> From "The Merchandising of Automobile Parts and Accessories," an address by Charles C. Parlin, of the Curtis Publishing Company, Philadelphia, 1915.



standpoint, fall into five distinct classes: Car equipment, tires, lubricating oils, fuel, and sundries. Failure to recognize that the merchandising problems of these classes are distinct has probably been the cause of many retail and jobbing failures.

Originally, all these lines sought their outlet through jobbing channels, but important changes took place:

1. Manufacturers began to equip their cars, and those articles of car equipment which did not require frequent replacement, such as lamps and windshields, almost disappeared from the jobbing trade.

2. Large tire manufacturers, finding the problems of adjustment difficult, established branch houses, and the jobber was compelled to abandon the line or to take the sales agency for a minor tire company. Thus a second important line was largely lost to the jobber.

3. Lubricating oils were found to be too heavy for indirect shipments, and the producers began to sell direct to large garages. Jobbing of oils, except within narrow bounds, tended to change to a brokerage basis or to give way to direct factory sales. Thus a third important line deserted the jobber.

4. Fuel was supplied by the Standard Oil Company through its own extensive sales system, and independent companies also sought direct channels to the retailers.

5. Automobile sundries alone remained. The jobbing of accessories seemed threatened with utter destruction, but jobbing in sundries could not disappear, for in the distribution of automobile small wares the jobber performed a necessary function, and fortunately the automobile industry grew so rapidly that the increased volume of business in sundries compensated, in part at least, for the loss of the more important items.

Jobbers suffered not so much from an actual decline in business as from lack of opportunity to expand as did other factors in the industry. The development of large companies was retarded, and jobbing has remained in the hands of relatively small concerns, few of which are able to merchandise their own brands effectively.

Retailing went through the same evolution. The sale of windshields and other car equipment was lost, the business in tires had to be divided with branch houses and innumerable selling agencies, while price cutting destroyed the profits. Lubricating oils, fuel, and other daily supplies were captured by the garages, and only sundries remained on which the exclusive dealer could build a profitable business.



As a matter of fact, retailing and jobbing are simply two activities of the same individual. The distinction between jobbers and retailers is less clearly drawn in automobile accessories and supplies than in other industries. Exclusive jobbers of automobile sundries hardly exist. Most large jobbers maintain retail establishments, and most large retailers job to garages.

This jobber-retailer, today, finds himself in possession of a rapidly changing business that requires alert attention.

1. The number of articles is large, a catalogue of an automobile supply house listing about 1,000 articles. Stock changes are rapid, for a thing in demand today may be obsolete tomorrow, either because something mechanically superior is invented, or because style has changed.

2. Prices are constantly being altered to meet rapidly changing competitive conditions, and stocks must be kept as low as possible.

3. The use of telegrams, telephones, and express probably exceeds that in any other retail business except that of perishable fruits; for the consumer who wants an article wants it immediately, and no one is carrying any considerable stock.

#### SATURATION AND REPLACEMENTS<sup>8</sup>

Conditions in the used car market continue to represent one of the major problems confronting the industry. It appears that the accumulation of old cars by dealers in exchange for new ones cannot safely be allowed to proceed much further, and that from now on the ability of distributors to sell new cars, which must ultimately determine the rate of output, will depend in an increasing measure on their success in moving used car stocks. The situation with respect to installment credits, which has occasionally been a source of some concern, is apparently giving very little trouble, with a prospect of even better conditions following the more conservative methods now generally used by the leading companies.

As to the longer-term outlook for the industry, it has become evident that replacement demand represents, and must continue to represent, a factor of constantly increasing importance in the market for motor cars.

This growth in the importance of replacement demand has a double significance. It means, of course, that the automobile industry must face the prospect of a permanently lower rate of increase in the number

<sup>8</sup> From the *Guaranty Survey*, April 25, 1927, p. 5.

of cars in use. At the same time, it indicates that this tendency need not result in any abrupt or drastic change in the rate of motor car output. In other words, it shows that the "saturation point" in the automobile market, so widely discussed and feared in the past, is in reality a saturation process, which has been going on for years and will probably continue indefinitely, with a gradual tapering of the demand for additional vehicles, a gradual increase in the demand for replacements, and a slow but sustained growth in the total number of cars in use.

Such a situation can hardly fail to result in greater stability in the position of the industry. It may, however, be regarded as certain that there is a permanent market for motor vehicles, a market sufficiently large to maintain the industry in the front rank of the country's manufacturing enterprises.

### *Outlook for Larger Exports*

Another striking trend in the motor industry during the next few years is likely to be the expansion in the export trade. Despite high domestic wage levels, transportation costs, economic depression abroad, and in some cases high tariff barriers imposed by foreign governments, American automobiles have found growing markets abroad. Exports have increased almost constantly throughout the history of the industry. Although exports of passenger cars last year were slightly smaller than in 1925, the decline was more than offset by the increase in shipments of trucks.

It is quite possible that, with a growing demand for replacements at home and a not unreasonable expansion in the use of automobiles in other countries, the abrupt termination that has frequently been foretold for the prosperity of American producers may never come to pass.

## MERCHANDISING MOTOR TRUCKS<sup>9</sup>

Retail truck selling may be segregated into two classes: First, by dividing the prospects among the salesmen on a geographical basis or by establishing a zone system; for further identification, we shall call this method the geographical plan. Second, by taking the prospect list and selecting from it a certain definite number of industries, each salesman being then confined to these particular lines of business; we shall designate this plan the selective system. Each of these plans requires

<sup>9</sup> From Robert O. Patten, of the Pierce-Arrow Motor Car Company, "Merchandising Motor Trucks," an address at the Highway Transport Conference, New York, 1920.

careful executive supervision, and the advantages will have to be judged by the result attained. But either method can be developed into great possibilities and can secure actual results.

Under the geographical plan, the territory assigned to the distributor is taken in its entirety and then reassigned to the various salesmen by districts or zones. The advocates of this plan—and there are many—press forward as advantages that the territory is more closely covered and that all lines of business are canvassed more frequently than by other methods. Furthermore, the salesman is able to call upon more prospects each day because his territory is concentrated and a minimum of time is lost between calls. Then again, as the distributor gains acquaintance and influence in the territory as a whole, the salesman correspondingly enjoys this prestige throughout the entire community in the particular territory under his supervision.

## LXII

### AUTOMOBILE TIRES<sup>1</sup>

#### *Historical Resumé*

Most of the large rubber tire companies of today were organized at or near the beginning of the present century. The original products were carriage and automobile tires. The main outlet for carriage tires were the buggy manufacturers. In the beginning, rubber bicycle tires were sold to the users of bicycles by mail; that is, a mail order business was also conducted. The traveling salesmen or representatives on the road maintained personal contact with the purchasers of the product and with the home office. The sales were made direct to the ultimate user or consumer at first; later the dealer was added.

As the business developed and as the companies grew in size because of the increasing use of the automobile, they began to establish dealers in the larger cities and also took on jobbers who would solicit trade in the smaller towns. Through advertising, trade-marks were developed. The salesman's contact with the home office was direct even after the introduction of jobbing agencies. Both the retail dealers and the jobbers sold direct to the users of bicycles and to the wheelwrights who applied carriage tires for their customers. The jobbers ordinarily marketed the rubber tires through dealers, but where necessary they sold direct to the consumers.

Sales branches of the companies, the first important marketing development, were established in limited numbers and only in large cities. The industry had developed to the point where the volume of business seemed to make direct sales branch houses economical. The establishing of branch houses occurred in the 6 years between 1904 and 1910 for one large company. The home or factory sales office continued to sell the products direct to dealers and jobbers. The sales branches served large territories for shipping purposes. These branch houses sold and delivered goods to jobbers, to dealers for direct sale, and also occasionally to consumers over the counter. The branch sales to consumers, however, were made at the published consumers' prices, so that competition with the dealers representing the company was not conducted

<sup>1</sup> From unpublished paper by Jack Kahn, University of Chicago, 1927.



on a price basis. The sales branches served the retail agencies on regular dealers' prices, which were somewhat higher than the price charged to jobbers. The competition of the branches with the jobbers was likewise not on a price basis.

With the establishment of the sales branches, the branch manager became the intermediary between the home office and the salesmen, and the contact between the last two grew less direct. The branch manager controlled the salesmen, and the responsibility of the salesmen extended to the branch manager alone.

The jobbers and dealers complained of and opposed the practice of the branch houses to sell consumers the products which they carried in stock. The sales branches discontinued selling to the consumers wherever they had established what seemed to the company satisfactory jobber and dealer representation. The policy of eliminating the jobber from tire marketing seemed advisable, and so the larger companies gradually ceased using jobbers in their scheme of distribution. At the present time (1927), the jobber is not used in marketing the popular brands and makes of tires; well known tires are handled through the company's branch houses. What has happened, in fact, is that the tire manufacturer has absorbed the wholesale and distributing task of marketing within his own business. Some companies have separate marketing departments, others sell their products to subsidiary companies who, in turn, have their own sales branch house organization.

Jobbers still handle and sell rubber tires, but the amount of this business compared with the total is not large, and moreover the tires are private brands, as a rule not very extensively advertised. The present channel of distribution through which tires move in the main is (1) factory (2) branch house (3) dealer and (4) ultimate user.

The control of salesmen involved some complexities in organization. One large company, the same referred to above, found decentralization of control of the field sales organization advisable. So in 1910 district offices were established which reported directly to the home office. These district offices were located in the larger branch cities and existed solely for purposes of management. They regulated sales, as well as collections (the financial part of marketing) and credits (the risk part of marketing). The district offices were relay stations of authority only, and not for shipment of the tires.

#### *Assembly of Rubber Tires to Distributing Centers*

The tire manufacturer ships out of his factory his regular brand of

tires to two main buyers, the automobile manufacturer and the retail dealer via the sales branch house. The tires shipped to automobile manufacturers as original equipment on their product are not wrapped in paper, but are merely loaded in cars and sent in carload lots. The freight cost for carload lots is 2 or 3 cents less than 60 cents a 100 pounds, and since a car will hold about 2,000 tires, which weighs 18 tons, the total cost per carload is approximately \$200 between Akron and Chicago (a distance of about 350 miles). For less than carload lots, the rate between Akron and Chicago (taken merely as an illustration of the rates) is 85 cents a 100 pounds.

The automobile manufacturer distributes his product first to distributors who act as wholesalers; then they, in turn, distribute to automobile dealers. Spare, or "extra," tires sold to automobile manufacturers by some large companies are on a price basis different from that of the four tires which go on the wheels. This is because in the past some automobile manufacturer would sell his surplus stock of tires to retailers who would pay cash to relieve the financial strain or situation of the needy manufacturer. Since the price was lower than that at which the tire company's regular dealers could buy their tires, the competition set up by this practice grew injurious. The trouble was taken care of by charging a higher price for spare tires sold to automobile manufacturers. The sales branch also sells spare tires to the automobile distributor or dealer if the manufacturer has not already equipped the car.

The main "assembly centers" for rubber tires are the sales branch houses of the tire companies. Smaller companies distribute their products through jobbers of various kinds, whether directly connected with the automobile business or not. Thus, hardware and grocery jobbers were taken on to sell tires to their customers or even to have the hardware or grocery merchant stock one or two popular sizes. This is more true in the rural and the smaller town regions than in large cities. The jobber is more important in marketing his own or "private" brands. A large percentage of the output of some tire factories is special brands made up for the jobbing trade. Another important outlet for special brands is mail order houses and large retailers such as department stores in large cities.

The proportions of the total output going into the various outlets are hard to determine for rubber tires. The variation between different companies is enormous, both in percentage and absolute amounts. To illustrate, some tire factories have 5% of their output go to automobile

manufacturers as original equipment. Some factories do not sell to automobile manufacturers, either because they cannot or because the margin of profit is not satisfactory; because competition is so keen, the profit margin is narrow. Other factories sell 25% to 30% of their output to automobile manufacturers. The large rubber companies have 35%, 40%, and even as high as 45% of their output absorbed by automobile manufacturers. By far the major portion of the output goes to the branches or jobbers, as the case may be; in any event, not less than half of the total production.

Governmental bodies, such as the Federal government and municipalities, are sold direct from the factory, or from the branch if more convenient, but on a price basis different from that of retailers. National accounts (of which such large corporations as Armours, Swift, American Can Company, are illustrations) are supplied by the factory or by the branch at prices which are the same as those charged to dealers, although these corporations were required to pay a higher price at one time.

Tires are stored at the branch houses or by the jobbers. The retail outlets also stock the tires, but in varying degrees of completeness. A statement has been made that there are 100,000 retail dealers who have some stock of tires, and 25,000 retailers who sell tires but have no stocks. The *Automobile Trade Directory* at the beginning of 1920 listed 35,000 tire dealers in the United States and Canada. Their classification includes shops where tires are the principal item sold, garages and repair shops, accessory dealers, and large department stores handling tires. In 1923 this same source listed 23,000 tire dealers in the United States. In 1924, the list grew to 43,000.

### *The Specialized Retail Dealer*

The most important sales reason for the tire dealer is the service he can give to the person who uses rubber tires. The "service station" not only sells tires but puts them on the wheels, suggests what should be done with the old tires—whether they should be repaired or discarded. He also inspects the wheel alignment, the brake bands, and other conditions which may affect the wear on tires. The mail order house cannot do this, nor can department stores. Their only argument is cheaper price, which is the only argument effective with certain groups of users. The other retail outlets handle tires as an incidental matter rather than as a major line, and the service they give is consequently not the same as that given by tire dealers.



The manufacturer plans his sales policy mainly toward the retailer, and by various schemes and devices seeks to attract him to stock and sell his product. A general custom in the tire industry is to guarantee tire prices for 30 days after the date of the invoice. This practice has been severely criticized, but it is retained because the people concerned think they are better protected. When price reductions occur, rebates are issued to the tire dealers in the form of book credits.

With increasing total amounts of sales, also, rebates are allowed, so that in effect quantity prices are in widespread use. Another peculiar sales practice is known as spring dating. This is a scheme designed to level production peaks by selling to the dealers in the fall of the year. Tires sold by this plan are for the next spring and early summer consumption. The tires are shipped from the first of December to the first or fifteenth of March in the following year. The tire dealers are given credit for a considerable period; they may even pay for these tires in April or May.

#### *Prices and Competition*

The tire industry is highly competitive. Most manufacturers have two or more brands of their regular product. These may be broadly separated into "quality," or first lines, and "price," or second lines. Their sales appeal is summed up in their respective titles. The first, or quality, line is made up of better-grade materials, is inspected more closely than the other lines, and is the brand advertised to a greater extent. The tire buyer and user wants mileage. A good tire delivers between 14,000 and 20,000 miles, according to the price paid and the manufacturer. The second, or price, line is chiefly made to meet the competition based on the price of the product, and the emphasis is accordingly based on price as a selling argument. One manufacturer based his distinction between the two lines on the quantity of raw rubber in the first line and the absence of raw rubber in the second line.

Prices of manufactured products are ordinarily based on the cost of raw materials, labor, and other manufacturing costs, direct and indirect. In the rubber tire industry the costs of raw rubber and cotton fabric are very important. Manufacturers are able to hedge their cotton purchases so as to be protected against price fluctuations in this commodity, and only recently have the same opportunities for price insurance been afforded in the crude rubber market through the New York exchange. Labor charges are said to be less than 10% of the total cost, but as



these are fairly constant this factor is not of as great importance as raw rubber costs.

In the past, the difference between profits and losses has depended to a very large extent on raw rubber prices and costs. In actuality, the tire manufacturers were speculating on the raw rubber markets, and when the price of rubber took unexpected turns, as very frequently happened, the year showed large losses or large gains. The financial history of the tire industry is indeed a checkered one.

In the tire industry, "competition has everything to do with price." There are about 100 companies manufacturing rubber tires in the United States. About 10 of the largest companies do approximately 85% of the business (a manufacturer's estimate). Five of the 10 largest companies have been accused of setting among themselves the prices which they agree to charge their dealers, and the rest of the industry must follow suit or be overthrown in the scramble for trade. Tire prices seem to be based on no reasonable standard at all, as the situation is presented to the user of tires. So, when the prices of tires get too high for him, he starts looking for a tire of cheaper price.

The terms of sale offered to the tire dealer are 2% if paid before the 10th of the month following date of invoice, net 30 days after the date of the invoice. The dealers will sell on almost any terms to tire users. Cash, credit, or installment plans are all followed. Dealers have certain credit limits. When a dealer is backward in paying up, if tires are shipped to him before the account is paid, he must purchase on c.o.d. terms. Some orders are shipped only when a certified check is received in advance of the shipment. All this is a reflection on the type of dealer in the tire business. In the winter time, some 60% of the tire dealers are good credit risks; in the summer time 85% are good credit risks. The reason should be obvious—more tires are sold in the summer than in the winter.<sup>2</sup>

### *Advertising Tires*

All important tire companies advertise. They use national papers and magazines, trade papers, local newspapers, bulletin and poster boards, direct mail, and nearly all the available media of publicity. In the winter, to illustrate the use of these various media, the farm papers

<sup>2</sup> *Moody's Industrials*, 1926, p. xxxv, gives the following percentage of total sales to illustrate the seasonal demand for tires.

January .....	6.75%	May .....	8.81%	September .....	8.64%
February .....	7.06	June .....	9.97	October .....	7.56
March .....	7.84	July .....	10.71	November .....	6.57
April .....	8.12	August .....	10.73	December .....	7.24
	<u>29.77</u>		<u>40.22</u>		<u>30.01</u>

are used; in the spring and summer, bulletin boards on the sides of busy roads are used. Advertising is done all the year around, but more is done in the summer than in the other seasons of the year.

The copy used by the tire companies may be educational in nature; that is, it may describe how tires are made, or how raw rubber is obtained, and point out the merits claimed by the company doing the advertising. Then, too, competition offers the bone on which a number of companies chew. "Goodwill" copy is used in attempting to build up or maintain the reputation of the company, but particularly the service and quality features of the product are stressed.

Most of the advertising is directed towards the ultimate user of the product, although some dealer advertising is done in trade journals. The advertising is done through an agency for the big town newspapers and national magazines, and by the company's advertising department for small towns of 500 cars or fewer. The general feeling is that advertising is necessary and helpful, and the tire men go ahead with it more or less blindly.

#### *Standardization of Rubber Tires*

There have been many efforts to reduce the number of types and sizes of rubber tires, but these have been unsuccessful for the most part. At the present time, there are between 80 to 100 sizes of tires. About 1916, the Society of Automotive Engineers (the "S. A. E.") recommended eighteen sizes as meeting the needs of the industry. The Department of Commerce is also trying to standardize sizes and types of tires and is meeting with some success. The major types of tires are fabric (of little and decreasing importance) and cord tires. Cord tires are subdivided into regular high pressure, oversize, and low pressure, or "balloon," tires. Then there are the solid rubber tires. The United States Bureau of Standards in the Department of Commerce has issued the Federal government specifications for pneumatic and solid tires, and for inner tubes, together with tests, in Circular No. 185 (second edition, March, 1925). This furnishes a basis on which the user of tires in the future may judge of the value and merits of individual brands.

## LXIII

### FARM MACHINERY

#### *Farm Operating Equipment, and Tractors*<sup>1</sup>

(1) AGRICULTURE is the largest single industry in the United States. Bureau of Census reports show that in 1920 there were 6,448,366 farms, with total acreage of 955,676,545, of which 506,982,301 acres were improved, whose value (land and buildings alone) was \$66,340,000,000, with \$3,195,000,000 as the value of farm implements and machinery.

The manufacturing of farm implements usually reaches its low point in August or September, peak production usually coming in February or March.

While more than 30,000 merchants sell farm equipment, this number includes a great many who sell implements in connection with other lines, such as hardware and general merchandise. The number specializing in implements is about 15,000.

A large number of branch houses are maintained by the manufacturers for the purpose of supplying promptly the needs of dealers in local territories and assisting in retail sales. The exclusive implement jobber, however, does not occupy a strong position in the field.

The implement business is largely a seasonal one. The sale of plowing, cultivating, and harvesting machinery is at its peak just before and during those respective seasons in the calendar of the farmer, and the contracts for stock are usually given by the merchant to the manufacturer six months or more ahead of the selling season.

The business is handled largely on a credit basis as to the terms extended both by the manufacturer to the dealer and by the dealer to his own trade.

There is a growing tendency for the manufacturer or dealer to demand cash or hold the title to the machinery in his own name.

While the horse continues to furnish the power for most farms, there has been a steady increase in the number of tractors put to use, and the development of power farming is one of the most interesting features

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<sup>1</sup>(1) From *Cain's Market Data Book and Directory*, 1924, pp. 199-201; (2) from *Farm Machinery Trade Associations*, Bureau of Corporations, United States Department of Commerce, March 15, 1915.



of the situation in this trade. Sales of tractors have grown extremely rapidly, and the attention being paid to tractors and tractor operated implements by the dealers is constantly increasing. At least 65% of the implement dealers sell tractors and other power farming equipment, and possibly 90% sell gasoline engines, of which more than 2,000,000 are in use on farms. The sale of accessories required for power machinery is likewise handled through the farm equipment merchant, whose stock now includes such items as spark plugs, fan belts, gasoline and lubricating oil, piston rings, radiator hose, tires, belting radiators, and other automotive accessories and parts.

Distribution of tractors is principally through established farm implement dealers, with the exception of Fordson tractors, which are sold by dealers of the Ford Motor Company. They represent 75% to 80% of the tractor output.

(2) Taken as a whole, the manufacture and sale of farm machinery, implements, and vehicles is one of the most important industries of the country. The aggregate investment of companies engaged therein amounts to over half a billion dollars. These goods are made in more than a thousand factories. The employees in these factories number more than 100,000, and probably nearly as many, in one capacity or another, are engaged in the wholesale and retail distribution of the product. Of these, over 40,000 are retail dealers. Retail sales of farm machinery, implements, and vehicles to the American farmer cannot be closely determined, but they amount to several hundred million dollars annually.

While the total number of manufacturers engaged in this industry is large, the great bulk of the business is in the hands of a comparatively few companies. The assets of one of these companies amount to about 125 million dollars. The assets of three others amount to as much more. Over three-fourths of the 40,000 retail dealers sell implements made by the International Harvester Company. Several other manufacturers are represented by from 10,000 to 15,000. Most dealers buy from a number of manufacturers, since no one manufacturer can furnish all the extraordinary variety of articles included in the equipment of the modern farm.

### *Squeezing Out the Jobber<sup>2</sup>*

The jobber was not forced out of the distribution system because he

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<sup>2</sup> From Barton W. Currie, *The Tractor and Its Influence Upon the Agricultural Implement Industry*, Curtis Publishing Company, Philadelphia, 1916.



oversold or undersold the farmer through the dealer. He was forced out primarily because he was a weak link in the chain. The closer the relations between the manufacturer and the consumer of farm implements, the better for both.

With the jobber between the manufacturer and the dealer, the manufacturer was seriously handicapped in passing along aid, advice, and service to the farmer. The dealer was vitally necessary to perform neighborhood service, but the jobber could not help to any extent, unless he were big enough to carry a pretty full stock of repair parts and shoot them along to the dealer when he needed them.

The manufacturer wanted closer personal relations with the consumer than he could obtain through the jobber. The jobber built up a personal business of his own, sent his salesmen out, and got what business he could, not for one manufacturer but for a dozen or a score. When the jobber died, his business died with him—not always, but pretty much as a rule. Some other jobber, working for other manufacturers, came in and grabbed this business, and the manufacturer whose jobber had dropped out had to begin all over again to work back into the territory.

The method employed to eliminate the jobber was to establish branch houses or to absorb the jobber and create of his business what was virtually a branch house.

### *The International Harvester Company*<sup>3</sup>

The giant task of marketing the product of all the Harvester Company's many plants is delegated to a vice-president. Under his direction a vast sales army moves and operates. It is divided into three divisions—sales, advertising, and collections. All these major divisions are closely related, and each is divided and subdivided many times. At the head is a general sales manager who is in charge of all the sales managers. These sales managers, in turn, manage the activities of 92 other sales managers, or branch managers, as they are called, who, in turn, supervise the activities of the still other sales managers, called blockmen. Each branch manager has his assistant branch manager, and there are four, six, eight, or more blockmen under him. The blockmen correspond to captains in a military organization, having under them "companies" of salesmen and repair experts. In order to serve this dealers' organization and their trade most effectively, the United States has been divided into 92 separate territories, laid out on a basis of practically equal sales possibilities and population. The business of

<sup>3</sup> From *Sales Management*, June, 1919, p. 155.

each of these territories is handled through a branch house, presided over by a branch manager and his assistant. Each of these branches is a big business enterprise in itself (some of them do an annual business of almost \$2,000,000) and has a complete complement of departments and employees, all of whom are hired by the branch manager. There is an accounting department, and credit, advertising, and repairs departments at each branch, the same as would be found in the establishment of any individual progressive concern doing business on a corresponding scale.

The branch house territories are subdivided by the branch manager into a number of small territories blocked out on the same basis as the branch house territories. These subdivisions of the branch house territories are called blocks, and each block is in charge of a blockman, who has direct charge of his allotted territory and has working under his direction salesmen and repair experts. The blockman is an all-important medium through which the concentrated sales efforts of the great organization behind him are transmitted to the dealer and the farmer. He is the man whose judgment is relied upon in the selection of dealers. He makes all contracts with dealers in his territory and takes their orders for machines and implements. He also educates the dealer in the adjustments and selling points of such machines and accessories. Working under the blockman are the field salesmen and repair experts. The former are sent out on the initiative of either the blockman or any dealer where sales are lagging or where business is so promising as to require their aid. The repair experts, or special salesmen, as they are called, function on the service side, and are always ready and equipped to go out into the field and repair any machines that may have developed engine troubles or are unable to work properly.

Cooperating with the blockmen is the branch house advertising man. He works hand in hand with the blockman and inaugurates sales promotion campaigns for the benefit of the dealer, giving each dealer personal, individual advertising helps.

The country is divided into five districts, and each has a district manager with headquarters in Chicago, reporting to the general sales manager, himself responsible to the vice-president in charge of sales. These five district sales managers supervise the work of the branch managers.

The advertising department at Chicago prepares all literature and newspaper advertising and supervises the policy pursued by the branch

managers in such matters. This department works closely with the sales organization described above.

The collection department supplements the efforts of the sales organization and relieves it of the heavy routine of handling this phase of the business. It is in charge of a manager of collections in Chicago. The different sales territories are grouped and placed under branch collection managers, each of whom is responsible for collections in the group of branch houses of which he has charge. At the head of the entire system is the vice-president in charge of sales. It is pertinent to note that in almost every case the dealer is a farm implement man.

## LXIV

### RADIO RECEIVING SETS

#### *Marketing of Radio Sets<sup>1</sup>*

THE early manufacturers of radio catered to the needs of the people, placing emphasis upon quantity rather than quality, ignoring selectivity and accuracy of tuning and the elimination of static. A large number of manufacturers and dealers, both jobbers and retailers, thinking that radio would last only a few years, produced or bought an oversupply of receiving sets and parts. As the people began to regard this new creation as a parlor utility instead of "an attic experiment," the nature of the demand shifted. Consumers now looked for apparatus which would enable them to tune out a larger number of stations, thus eliminating interference and diminishing static; they entered the market for slightly apparatus which would be an ornament in the home; and above all, they wished for sets which could be as readily operated as a phonograph with very little tinkering and experimentation. As a result of this change in the public desire, however, many manufacturers and dealers found themselves overstocked with obsolete apparatus.

Into the scene entered the price cutter. In order to stimulate the sale of other lines, some retailers and wholesalers would cut the price on a comparatively standard article so as to result in a probable loss. They hoped that the additional sales of other articles would make up for the deficit. So many manufacturers were permitting their products to fall into the hands of such cut-rate dealers that the effect on the trade was unhealthy. Practically every day the buying public would read in the newspapers of further price reductions.

To aid in the stabilization of selling policies, associations of various kinds have been formed, such as the Radio Manufacturers Association, with headquarters at Chicago, the Radio Trade Association, of New York City, and the Radio Apparatus Section of the Associated Manufacturers of Electrical Supplies. These organizations are valuable in collecting and spreading information as to trade practices and in the making of recommendations for the benefit of their members.

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<sup>1</sup>From H. L. Jome, *Economics of the Radio Industry*, A. W. Shaw Company, Chicago, 1926.



*Standardization*

The pressure for standardization has come from three sources: from the United States Government, which is a large purchaser of radio apparatus and which by the standards it sets has a far-reaching effect on the efforts of private producers; from the manufacturers, dealers, and wholesalers who benefit from standardization in that it makes for lower costs per unit, wider market, and larger sales; and from the general public, to whom uniformity in parts means an additional convenience and economy in that they will be able to buy parts with a designated advertised name and will be assured that the parts can be used with any type of standard apparatus.

Since radio manufacturing is an "assembling" process, the manufacturer of the complete sets or parts ready for use by the public stands in the center of the chain. At the same time that he is disposing of his products, he is a buyer of the products of other factories. From a cabinet manufacturer he purchases the cabinets and panels. From the copper producer, through the respective middlemen, he buys the necessary copper. And so, after obtaining other parts, he assembles the complete sets.

*Channels of Distribution*

The radio manufacturers have adopted, in general, three different methods of distributing their products. Some make use of the so-called manufacturers' representatives, usually granting them exclusive territory. They, in turn, sell to the jobbers in their districts, one such representative reporting that he served 300 jobbers. A factory representative differs from a wholesaler in that he works on a commission basis and does not, as a rule, carry stock. Occasionally he carries a small stock on hand for the convenience of the wholesaler. A factory representative does not guarantee the credit of the account from which he secured the order, but simply acts as an order taker like any ordinary salesman, from whom he differs, however, in that he is permitted to sell more than one line. Very often he represents ten or a dozen manufacturers and occasionally even more.

The exporting producer commonly markets his radio apparatus through such representatives. These middlemen then sell to the wholesale importers, either direct or through commission agents. In the domestic field, manufacturers' representatives are not in great prominence, being used chiefly by radio accessories companies, whose main business is with the manufacturers of complete sets. Thus, a radio

manufacturer whose products go abroad may deal with a manufacturers' representative both in procuring parts of his apparatus and in the disposal of his products.

The second method used by the radio manufacturer to dispose of his products is the wholesaler-retailer system. There seems to be some tendency for the manufacturer to grant the wholesaler an exclusive franchise and for the wholesaler to give the retailer a non-exclusive franchise. Some manufacturers or manufacturers' representatives report that though they grant no exclusive rights to their wholesalers, they limit the number to such an extent that there are appointed only enough to serve adequately the territory in which they wish to dispose of their products.

The third general method of marketing radio is the direct-to-the-retailer system. This is common in sales to mail order houses and chain stores. Occasionally, manufacturers maintain their own systems for retailing. Another common direct method is the radio show. Just as in the Middle Ages producers assembled at certain places to display their wares and to obtain social contacts, so radio manufacturers and dealers now congregate at designated points to display and sell their apparatus. While the enterprises of olden days were called "fairs," the modern meetings are known as "shows," or "expositions." Three national radio expositions have been held in the United States, besides a large number of local or district shows. At these expositions, goods are actually sold to the retailers and wholesalers who are present. At the 1924 National Radio Show held in Grand Central Palace, New York City, \$10,000,000 worth of business was transacted. The total attendance was 200,000, the daily record being 27,000. About 200 manufacturers had exhibits at this exposition. Considerable business is also transacted at the smaller district shows.

### *The Need for Advertising*

Advertising on a wide national scale is today a practical necessity in radio. "There is a tendency," says a Chicago electrical and radio wholesaler, "for the consumer to want a set that is advertised. This desire for advertising products is more apparent in radio than in many other fields. The consumer wants an advertised product because he feels that he is so ignorant about the principles of radio that the fact that the article is advertised gives him a feeling of assurance." The retailer of radio, as a result, prefers to handle apparatus that is backed

by national advertising, because he feels that the manufacturer or the wholesaler has, as it were, broken and paved the way for him.

### *The Jobber*

The American Radio and Research Corporation several years ago eliminated the wholesaler from its marketing system. As reasons for its attitude toward the average electrical jobber, this company states:

1. The average jobber carries various makes of equipment, and his efforts are concentrated on being able to supply whatever is ordered of him by dealers, and not upon pushing the sale of any one product.<sup>2</sup> Further, the average jobber handles other electrical lines, and as the seasonal demand increases for them, he is disposed to drop all effort to push radio equipment.
2. Jobbers standing between us and the dealers have tended to cause us to lose the "dealer contact" which is essential in handling a specialty such as radio, where the public requires so much detailed information, which must be continuously fed to the dealers.
3. The jobber is not organized to render proper technical service to dealers.

These reasons caused the American Radio and Research Corporation to assume the jobber's function and to sell to the dealer through its own branches. This system was put into effect and given a trial by the corporation, but it was not successful for "two reasons, first, the inability to get proper personnel, and second, the difficulty experienced in collecting accounts." The corporation has therefore gone back to the method of selling to wholesalers who, in turn, sell to retailers. The company has found this reversal necessary at the present time, but still believes the plan is theoretically sound.

There is, as already stated, a tendency in the radio field to grant exclusive agencies, though this is more common in the wholesale than in the retail trade. Radio, being a type of goods for which there is need of an intensive sales effort and which will require special service from the dealer, ought to lend itself to the use of the exclusive franchise. This holds true only of the complete sets; in parts and accessories of various kinds, the non-exclusive agency, especially in the retail trade, should be the rule.

The radio is now not a novelty but a utility. Customers call at the

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<sup>2</sup> Some question may be raised about this point because of the known importance of owned jobbers in the electric trade. Some of the large electrical goods companies practically own and control the leading jobbing outlets. This, it is claimed by many, gives them an undue advantage in competition with other manufacturers.



radio store, where the apparatus is demonstrated to them. Then, after they have purchased, the dealer may be asked to install the set. But it is not necessary for the manufacturer to resort to intensive house-to-house selling.

It is conceded that establishments unrelated to radio, such as hardware stores (except in the small towns, where they may be the only outlet), are not suitable for the retailing of radio. The controversy is mainly as to the relative merits of the electrical shop, the furniture and music store, and the exclusive radio shop. In favor of the furniture and music store as the main type of outlet may be mentioned the following arguments:

1. The receiving set is primarily a musical instrument.
2. The musical instrument dealers have for many years been specializing in a full-grown, high-priced, quality product.

In favor of the electrical shop may be argued:

1. Although a receiving set is used to a large extent for listening in on concerts, it is, nevertheless, an electrical instrument which is likely to require attention. The proprietor of an electrical store knows more engineering than the furniture or music dealer.

2. The music dealer knows very little or nothing about the instrument which he is selling. If he adds radio to his stock, he will be entirely at a loss when some inquisitive customer inquires about the difference between two apparently similar but differently priced sets. He is not familiar with radio terms.

3. The electrical dealer can install a radio section with very little extra expense.

4. Since many electrical wholesalers have added radio to their stock, the electrical dealer, being acquainted with the marketing procedure, has an advantage in the purchase of radio apparatus.

Radio goods probably fall in the specialty class, though there is evidence of the fact that at the beginning of the radio craze such apparatus possessed many of the characteristics of the shopping group. Individuals would go from store to store to listen in at the loud speaker, to ask questions about the operations of the set, to compare prices, and to see which type of apparatus would present the best appearance in their living room, but with the growth of national advertising, with the standardization of products, and with the stabilization of styles, radio is rapidly assuming the characteristics of a specialty goods.

Radio more than any other industry can be termed a "service industry." A sale is not complete when the cash is rung up or when the order is taken, but the dealer must, as a rule, advise in installing, or



actually install, the apparatus. He must stand ready to aid the customer in the elimination of difficulties, in the choice of apparatus and tubes, in the adjustments necessary to tune in on certain broadcasters, in the identification of previously unheard stations.

### *Chain Stores*

One of the most successful radio chain systems in the United States is the Liberty Radio Chain Stores, Incorporated, chartered under the laws of Delaware. The extensive use of the chain store is not practicable in radio. Radio does not lend itself advantageously to mass buying and selling methods, which are essentials of a chain store system. Radio apparatus must be demonstrated to the customer; some system of installment buying will be demanded; and more dealer service is required than the average type of chain store is willing or able to render. Radio chain stores will continue to be a success only as long as the number of establishments is so small that they may continue to be under the direct supervision of the proprietor, thus preserving the personal touch.

### *The Market Becoming More Settled<sup>3</sup>*

There are many indications that radio is through with growing pains and is settling down to become a real business. The four years of turmoil and shell fire have brought results. From the professional inventor on through to the user, there is an increasing steadiness and an admission of purpose that speaks well for the future.

Out of the long list of casualties among the manufacturers of radio receivers, there has emerged a comparatively few stalwarts who are shouldering the load of making receivers for the great American public. These manufacturers have strength and judgment behind them.

Now that the skies are clearing and radio is becoming a business with many of the early merchandising beliefs buried under the chaos created by amateur sales planners, these veterans of other merchandising tangles are coming to the front, and their sane advertisements are replacing the spreadeagle screamers of those who sold their stock to the public and used this money to pay for publicity that had little to back it up.

These survivors are good manufacturers and they are in the main building radio receiving sets on experience gained in similar manufacturing over a period of years. Few of the companies now shouldering

<sup>3</sup>From *Dry Goods Economist* (Electrical Goods Section), August 7, 1926, p. 22.

the burden of the trade were guilty of announcing two years ago that their receivers were "world beaters." They said then, as they say now, that their receivers were good receivers and that they were made for public use. In the main, the dealer who splashed three or even two years ago, and told his community that he was the "greatest and only" is done.

#### *The Seasonal Element*<sup>4</sup>

One of the obstacles with which the radio industry is confronted is its seasonal character. It will be with us for some time to come, if, indeed, the slump in the radio sales curve is ever overcome, but the sharpness of the summer decline can be lessened. The creations of programs put on the air on a national scale that will be attention-compelling in the dull season will be a material helper.

I was very much interested in checking the results that the great Eucharistic Congress, held this past summer in Chicago, had on Middle West radio business. Dealers in Illinois, Wisconsin, Iowa, and other middle western states reported great activity in radio sales immediately preceding the event.

The broadcasting of such events as the Dempsey-Tunney fight, the magnificent radio banquet held in New York in early fall, and the concentration of programs like those that will reach the public and keep the interest of the listener in the dull season, can, I believe, be accomplished by the industry and will certainly create business.

<sup>4</sup>From *Dry Goods Economist* (Electrical Goods Section), January 8, 1927, p. 18.

## LXIV

### INDUSTRIAL EQUIPMENT

#### DISTRIBUTORS

##### *Statistical Survey*<sup>1</sup>

A NEGLECTED subject in the field of industrial marketing is the distributor. Everybody knows, of course, that distributors are used, but few manufacturers have any definite idea as to the percentage of houses which sell to distributors, the percentage of their output which is disposed of in this way, the costs of selling direct as compared with selling through distributors, and a host of other propositions which are suggested by those stated.

In order to get some real facts on the situation as it relates to industrial distribution, *Industrial Marketing* undertook a survey which has developed some very interesting data. It has demonstrated that the distributor is being used on a much larger scale than is generally supposed, and it is indicated, in the absence of exact dollar figures, that the volume of business done in this way is larger than even those well informed as to industrial sales conditions would believe.

##### *Two-Thirds of Sales Direct*

Seventy-one percent of the manufacturers reporting were found to be selling approximately 50% of their product through distributors. This means that approximately one-third of the industrial equipment and supply sales are being made through middlemen, compared with two-thirds direct. Twenty-nine per cent make all their sales direct, and this, added to the 50% of direct sales made by the other group, gives the preponderance to the direct-sale method.

About 250 representative manufacturers were queried. They were selected from a list of companies selling rather widely throughout industry. Seventy-eight replies were received, 55 of these being from companies which *Industrial Marketing* would classify as "general industrial." That is, they sell products for use in power transmission, electrical, material handling, factory construction, packing, and similar activities which are found in all industrial fields. The remainder were

<sup>1</sup> From *Industrial Marketing*, January, 1927.

from manufacturers of machine tools, special machinery, and so forth, who sell in more restricted industrial markets.

It should be explained here that while all the manufacturers addressed were asked to name the types of industrial distributors used, four classes of distributors were indicated as representative of what was in mind. These four were the mill supply house, wholesale hardware house, machinery dealer, and manufacturer's agent. It was thought that if the manufacturer selling through middlemen was using any other types, he would so indicate.

The query did not take account of the special distributors who serve in only one field. For example, there are a limited number of foundry supply jobbers, bearing distributors, etc., whose service is intended for a small number of manufacturers selling in one industry. In addition, the electrical supply jobbers, plumbing and heating jobbers, and similar wholesalers are organized to carry the products of their own industries almost exclusively, and hence are not ordinarily available for the service of the manufacturers of general items in the industrial line. Therefore they were not shown on the questionnaire.

Of the total of 78 replies, 49 were shown to be using distributors to some extent; 9 did not report on this item, and 20 were shown to be selling direct exclusively. Thus of the number who reported on their methods of distribution, 71% were found to be selling through distributors, as against 29% selling direct.

This does not mean much, however, unless it is pointed out that those in the 71% group include all those who sell any part of their product through any other medium than their own representatives. The percentage, of course, varies widely, starting at 5% and running all the way to 100% for a few. As a matter of fact, there are fewer selling 100% through the distributor than are selling 100% direct, the obvious situation being that the typical arrangement is to use both direct sales efforts and some distributors as well.

Now as to the types of distributors. Eliminating those which were mentioned only a few times, such as the automotive wholesaler, foundry supply jobber, railway supply house, and so forth, the principal groups are classified as follows:

- Mill supply houses, 22
- Wholesale hardware, 12
- Machinery dealers, 23
- Manufacturer's agents, 25



The total number shown in the replies was 96, and as this was based on 49 replies covering the types of distributors employed, it is evident that the average house using distributors is using, on an average, two different kinds. In many cases, it was found, the manufacturer had as many as half a dozen different kinds of distributors on his list, the plan being to select the best house for a given kind of work in a given territory.

In terms of percentages of the number of manufacturers replying, the figures are:

- Mill supply houses, 44.9%
- Wholesale hardware, 24.5%
- Machinery dealers, 46.9%
- Manufacturer's agents, 51%

This gives the manufacturer's agent first place, the machinery dealer second place, the mill supply house third, and the wholesale hardware house fourth. If some types of machinery dealers, such as those selling contractors' equipment exclusively, were added, the machinery dealer group would be credited with the largest figure, 55.1%.

The result lays unexpected emphasis on the manufacturer's agent, and to this extent is likely to astonish the average manufacturer. This is because the manufacturer's agent, while numerous, is not so much in the limelight, since he does not carry a stock, does not travel salesmen in number, and devotes himself, as a rule, to a small number of lines.

Likewise, on this account, the number used should not be given too much importance from the standpoint of the volume of business done, since the mill supply house, with its large organization, its stocks in warehouse, its catalogues, and so forth, is in a position to do a big business and hence to contribute in similar measure to the sales of the manufacturer using this type of distributor. The same consideration applies to the hardware jobber.

However, the result was surprising, as far as the manufacturer's agent is concerned, in indicating that he is employed for many items which theoretically might be supposed to call for direct selling, that is, items of a highly technical character, and many of them large units carrying high prices. Both large and small houses were found to be using this type of representative, and in many cases manufacturer's agents were employed to sell equipment of an engineering character which requires considerable special knowledge on the part of the sales representative.

It thus appears that manufacturer's agents may be selected who, because of their specialization on a few accounts, can be trained to give reasonably good service on even those which are difficult for the ordinary distributor from technical or engineering considerations.

The importance of the machinery dealer may be emphasized as reflecting the need of representatives carrying stocks and furnishing immediate delivery service to the customer. This is getting to be an important consideration. Furthermore, the machinery dealer handles the account of the customer and makes the collections, assuming full responsibility for the business, where the manufacturer's agent works on commission, as a rule, and his responsibility ceases when he sends in the order. The growing use of machinery dealers, such as those specializing in the contractors' equipment, machine tool, and similar fields, may be regarded as of considerable significance.

It will be worth while to analyze the percentage of the product of the manufacturers selling through distributors which is disposed of in this way. From the data at hand, this can be determined only by taking an average of the percentage supplied. This does not give all the facts, of course, since a small percentage of a large volume would represent more dollars of sales than a large percentage of a small volume. Hence the average of all the percentages, while being an excellent indicator of the probable situation, should be taken with at least this reservation.

The remarkable fact is that the figures show an average of almost exactly 50%. That is, the average percentage of distributor sales reported by the manufacturers who replied to this inquiry is 50%, and if it is safe to assume that the sales volumes will average up pretty well, then the inference is that about half of all the goods sold by this type of manufacturer move direct and about half through one or more types of distributors.

This is a fact of major importance, as the reader will agree. It shows that it is entirely possible to build sales of this character comparable with the best efforts of the house on direct sales. While this result is not practicable in every case, it is at least indicative of the possibilities of distributor selling, provided the right dealer policy and the right kind of representatives may be obtained.

Of the houses which reported on this item, only five sell 100% of their product through distributors. However, three more sell 95% in this way, and the same number account for 90%, so that a total of 11, or 22.4%, sell practically all their products through distributors. One sells 80%; three, 75%; two, 66⅔%; four, 60%; and six, 50%.

Totaling this group means that 27, or 55.1%, substantially more than half, sell half or more of their product through the use of middlemen of one kind or another. Here is another indication pointing accurately to the volume of distributor sales which it is possible for industrial equipment and supply manufacturers to obtain.

The results which have been given above, it should be emphasized, are predicated on a preponderance of replies from manufacturers selling the general industrial field. Had special fields been given equal importance, the conclusions drawn likely would have been different. But the number of the replies, the variation in the character of products manufactured, the range of sales volume from the largest to the smallest, and the development in this way of a real cross section of the field to which the inquiry was directed, justify regarding the facts as highly suggestive, if not finally established.

#### *Misunderstandings between Manufacturer and Jobber<sup>2</sup>*

Manufacturers who sell through jobbers, mill supply houses, and agents have long been dissatisfied with results. They have usually expected more than they have been able to realize through this method of selling.

The average manufacturer in many fields, selling through jobbers, develops several good salesmen, sets them up at the larger centers, and puts them to work. The jobber or mill supply house finally gives in and catalogues the manufacturer's product. A bulletin may or may not be sent to the jobber's salesmen announcing the new product. In many cases the manufacturer's representative makes a short talk on the product, explaining it to the men.

Later, a few hundred circulars arrive with the manufacturer's name on them, but not the jobber's. The jobber may use a rubber stamp or sticker and in that way deface an otherwise good-looking piece of literature, in order to establish his identity as the local source of supply. Then nothing more is done except to wait for results, which naturally never materialize in proportion to the expectations.

The manufacturer who claims to have a strict dealer or jobber policy, but who takes desirable business direct whenever he can do so, is still common.

This manufacturer may and usually does help his jobbers with sales and advertising effort. The jobber then educates and builds up his

<sup>2</sup> From Keith J. Evans, "Putting Relationship of Manufacturer and Jobber on a Fifty-Fifty Basis," *Class and Industrial Marketing*, January, 1927.



accounts, only to find the overambitious district representative occasionally taking the business direct.

It is surprising how quickly just a very few such transactions travel through the trade and disturb the confidence of the jobber's salesmen and thus dampen their enthusiasm for the product.

### *Full Stocks and the Jobber<sup>3</sup>*

The percentage of volume sold through jobbers varies widely in different lines, ranging from plumbing, steam, and electrical construction supplies, 95% of which are sold through the jobber, down to finished steel, only 10% to 15% of which is distributed through this medium.

The tide of direct selling threatened for a time to blot the jobber out in several lines. In many cases, however, manufacturers who went in for direct selling found their sales costs considerably higher for direct distribution. The trouble with a good many concerns who went into direct selling lay in the fact that the factory was reluctant to assume the jobber's function of maintaining a complete assortment of stocks. They also contested the purchasing agent's growing approval of short-term buying where applicable, for additional salesmen's visits meant higher selling costs.

The jobber, on the other hand, in many cases, has failed to take advantage of the opportunities which changes in purchasing policy have afforded him. His function as a middleman is inseparably tied up with modern purchasing practice, unless the time is near at hand when manufacturers who sell direct will be willing to keep ample stocks of their finished products on hand.

In the past two years a remarkable amount of capital has been released from inventory stocks and put to work in other fields. Any number of examples are on record of what the leading corporations in the country have accomplished along these lines. Then there are thousands of similar concerns who have caught the spirit and have subjected their stocks on hand to close scrutiny, and invariably have found that certain quantities could be disposed of without impairing the plant's operating efficiency.

Back of this accomplishment, of course, lies the incredible advance of transportation efficiency, chiefly on the part of the railroads, but due in some measure also to hard roads and motor truck distribution.

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<sup>3</sup> From Richard Forester, "Efficient Jobber Can Release Capital from Inventory for Other Work," *Class and Industrial Marketing*, May, 1927.



Where the jobber has seized his opportunity to fit in with the new order, he has not failed to profit, and for those wholesale distributors who can guarantee a dependable regularity of delivery, which permits the release of inventory capital, there is an assured future.

The question often arises as to what constitutes fair factory discounts to cover the jobber's operations. It is true that there are jobbers who are, in fact, nothing more than brokers in a three-cornered arrangement with the factory and consumer, taking their percentages and offering nothing tangible in return. But these are units that will eventually fall by their own hand, just as the country general store, through lack of merchandising service, has gone down before mail order and chain store systems.

That a jobber who maintains ample stocks, and merchandises them, is entitled to a consideration for this service, cannot be denied. It is therefore disconcerting to such a distributor when some purchasing agents insist that he practically meet factory quotations. In many cases where jobbers have questioned the reason for purchasing agents' making such demands, we have found that the manufacturer or producer has been attempting to burn the candle at both ends by quoting the buyer the jobber's discounts in order to move at the time, direct to the consumer, certain stocks of merchandise.

#### *Uniform Contracts<sup>4</sup>*

The Associated Equipment Distributors, composed of leading merchants in the construction equipment field, prepared and put into use several years ago a uniform contract between manufacturers and distributors handling their products. The contract is reported to have been satisfactory and after trial to have demonstrated its value.

It provides that the agreement be in force for one year and be renewed automatically thereafter, with a provision for cancellation on 60 days' notice. In the event of cancellation, the manufacturer supplies parts service for one year. If the manufacturer cancels, he takes back the unsold stock on hand, paying the return freight to reimburse the distributor for original incoming freight charges. If the equipment dealer cancels, he returns the stock for credit and prepaes the freight.

The contract assigns a specific territory in which the distributor has exclusive selling rights. He is guaranteed complete protection in his territory, the manufacturer agreeing to turn over all inquiries to him

<sup>4</sup>From "Uniform Contract in Construction Equipment Field," *Class and Industrial Marketing*, January, 1927.

immediately after receipt. He is paid the regular commission on any sales made direct.

The dealer agrees to carry a stock of equipment and parts of a certain definite quantity. He also agrees to settle promptly for all goods and to maintain selling prices.

An interesting feature is the provision covering advertising. The manufacturer agrees to supply advertising material for distribution to the merchant's mailing list. The advertising is supplied free, but the distributor pays the cost of mailing it out. The advertising matter must bear the imprint, name, address, or trade-mark of the distributor.

In the event the manufacturer brings out a new product, the distributor has the first option on its sale in his territory, but is not required to take it on, because of possible competition with a product he may already be handling.

Provision is made for the consignment of stated quantities of equipment and parts.

The manufacturer guarantees the quality of his product and agrees to replace parts proven defective within 30 days from date of their delivery to the customer.

The distributor agrees to maintain a mechanical service department. He also agrees to push the manufacturer's product vigorously with an adequate sales staff, and not to accept the representation of any competing product.

Provision is made in the contract form for a special agreement covering other details. M. R. Hunter, of the Hunter Machinery Company, Milwaukee, who was formerly president of the Associated Equipment Distributors, said that variations from the standard contract are expected, to suit individual conditions, such matters as stocking being one of the subjects where the practice varies, according to the nature of the product.

He added that the general idea of a standard form of contract has been approved and has worked out well in this field.

#### *Standardization and Stocks<sup>5</sup>*

The new industrial buying policy, which is now becoming an important factor in relation to marketing methods, has been summarized as follows:

Industry, at one stroke, has wiped out interest charges of millions of dollars by new methods of buying, which mean smaller stocks of sup-

<sup>5</sup> From Charles F. Pemberton, "New Buying Habits of Industry Demand Better Delivery Facilities," *Class and Industrial Marketing*, January, 1927.

plies carried in stores, and which release enormous amounts of capital for other purposes.

The simplification program of the Department of Commerce, which has reduced the number of items in most of the lines of standard commodities, has fitted into this program of conserving capital by reducing current stocks.

The railroads, by increasing their efficiency in the handling of freight and by moving goods quickly from point of shipment to destination, have made it possible for industries to get along with these smaller stocks.

Manufacturers selling to industry, by studying distribution more carefully, have found it possible to locate stocks of their products at strategic points all over the country, in the hands of distributors or in their own warehouses, so as to make it possible to supply the buyer quickly and economically.

#### *Weakness of the Manufacturers' Agent<sup>6</sup>*

The Elliott Company makes a line of power plant equipment which has been extended within recent years to the point where the Elliott line in itself is about all that any one man would want to handle; in fact, the Elliott line comprises a group of power plant products which is as large as the average manufacturers' agent working for himself would want to tackle. The line includes several forms of prime movers—steam turbines, and the three accepted types of steam engines—generators and electrical machinery, a full line of steam condensers, deaerators, feed water heaters, and on down to such small items of equipment as boiler tube cleaners.

With such a line, it is obvious that a salesman must possess a certain amount of engineering training, in addition to intimate knowledge of the idiosyncrasies of the various highly technical power plant products in the line.

Right here is the place where the average manufacturers' agent falls down. He may be equipped with an excellent engineering education, but he cannot afford to spend the time and the thought on each particular line to know it as intimately as the company's own salesmen do. An agent will tend to specialize on one or two particular products and neglect the rest of the line. He may be interested, say, in turbines, and know turbines inside and out. The result will be that he will spend his time on turbine jobs, neglecting other important and profitable items of the line. He does not sell the whole line.

Then there is the matter of service. The agent working on his own

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<sup>6</sup> From C. W. Kalbfus, "Why the Elliott Company 'Canned' the Manufacturers' Agents It Inherited," *Industrial Marketing*, February, 1927.



time, and at his own expense, being reimbursed by the company only by way of commissions on sales actually made, is not strong on the service end, and is apt to hesitate about putting in a lot of time trying to fix up troubles and misunderstandings, where he sees no chance for immediate or future profit to himself. We consider it just as important, if not more important, to satisfy a customer who is having real or imaginary trouble with any Elliott equipment as it is to attempt to sell a new piece of equipment.

### *Selling Expenses<sup>7</sup>*

Both sales and advertising costs are usually highest for manufacturers of specialties. Products which represent new ideas in industrial methods require educational work to be done, and this is expensive from both the sales and advertising standpoints. The available volume is usually small, to begin with, and this makes a high percentage figure, even if only a modest outlay is expended for introductory sales purposes.

The following are the sales expense percentages reported to *Industrial Marketing* by manufacturers of products classified as "specialties":

30, 20, 12, 20, 20, 25, 16, 22, 11, 11, 10, 15, 10, 15, 5, 20.

The figures for the products which fall into the category of staple, standard articles were as follows:

9, 4, 12, 2, 10, 10, 17½, 10, 12, 6.

## THE SALESMAN

### *The Salesman a Technical Expert<sup>8</sup>*

We do not insist that a man we employ as a salesman be an engineer. It is perhaps merely a coincidence that most of them are. I myself have been an electrical, telephone, and signal engineer, and have worked on a couple of railroads and a southern project which they call the Panama Canal. I do not know how much that has to do with salesmanship. Possibly not very much.

The Kerite Insulated Wire and Cable Company has been manufacturing insulated wire and cables for more than half a century, its more strenuous efforts being in the railroad field, in which it is today a highly important factor, as far as signal, electrical, and telegraph de-

<sup>7</sup> From *Industrial Marketing*, February, 1927.

<sup>8</sup> From statements by W. H. Fenley, of the Kerite Insulated Wire and Cable Company, as quoted by Eugene C. Murray in *Industrial Marketing*, January, 1927.



partments are concerned. A large percentage of the company's production goes to the railroads. In 1916, which saw the completion of ten years of service experiment with Kerite on automotive engines, the company decided to enter the automotive field.

Kerite had sold itself on the idea that it was the best wire for use in ignition circuits. When the company took ten years to prove its point before it attempted to sell a single foot of wire to any automobile maker, it perhaps emphasized the policy which has been a part of the woof and warp from its beginning, and incidentally, the outstanding feature of my own sales experience.

We know our product and we know all that we can know about related subjects. When I go into a town where there is an automotive plant, I call on the engineering department of that company to tell it about Kerite. I do not hand out a stereotyped talk that someone in an office in New York has written out for me to memorize. I must have brains or my company would not have hired me. If I have brains and knowledge of the thing I am trying to sell, I do not have to bring any artificial or extraneous subjects into the picture. I can be natural and honest and discuss the situation and my product intelligently with the engineers on whom I am calling.

I can devote my efforts to building up a pleasant, natural situation, at some point of which the engineer will decide easily, and without any strain either on his conscience or intelligence, that Kerite should be used in the ignition of the cars, trucks, busses, or airplanes he is designing.

After I am through with the engineering department, I call on the purchasing agent of the plant. The purchasing agent is always a purchasing agent. That is, in the majority of cases, he will specify the cheapest material he thinks will get past the scrutiny of the engineering department. That means that if he is honest, and able, and on the job, he is not likely to be primarily a warm friend of Kerite, which costs more than any other rubber-covered ignition wires now on the market.

Why should I kid myself as to the attitude of the purchasing agent on Kerite? I do not. Nor do I allow the purchasing agent to kid me. We are perfectly frank and friendly with each other. I tell him that I have just been calling on his engineering department, and how are you today?

That is about all in most cases. There are exceptions, of course. There is always the personal equation. Sometimes the purchasing agent, by reason of some dynamic quality, some inherent or acquired trait

which raises him above the level, is the dominant factor in an organization, towering above the engineering department. Where that condition exists, I endeavor to adapt myself to the peculiarities of such a situation.

### *The Salesman's Kit<sup>9</sup>*

Naturally, the salesmen of no two firms require the same material, but here are some of the items, new and old, that are now making up the kit:

1. *Price Book*. Loose-leaf, with new pages mailed the same day the change is made.

2. *General Catalogue*. In many instances this is combined with the price book, and freight rates, and so forth, are also included.

3. *Samples*. Some remarkably clever sample books, sample cards, light small models, and the like, are being developed. The actual material, product, or part of product is arranged to take next to no space.

4. *Motion Pictures*. Salesmen for heavy machinery or other equipment, where it is of value to show the production in action, are using the new light movie machine for projecting the complete performance on the buyer's office wall.

5. *Sales Manual*.

6. *Performance Data*. The extensive McGraw-Hill investigations of the major buying influences in the industrial field place actual facts of performance away out in the lead over any other type of information.

Time was when the good old house, a stein of beer, or a good cigar went a long way. The general story was told and the order received. But today too many competitors have actual performance records of materials and equipment in use in shop and field. Engineering and survey companies are specializing on digging out these facts and figures. They show performance of old equipment, cost of new machinery, upkeep and maintenance cost, overhead operating expenses, savings in time, men, and money, increased profits, and so forth.

They take many installations under many varying conditions in different industries. One or more compares with each particular prospect's problem. He does not have to take generalities and will not do so. He buys on performance and knows what he is getting for his money.

7. *Call Reports*. Most progressive companies prepare simple forms, conveniently arranged for the men to fill in as they call. In the case of

<sup>9</sup> From Keith J. Evans, "New Tools for the Salesman's Kit," *Industrial Marketing*, February, 1927.

plain merchandise, the name of the company and town is usually enough for routine calls. When heavy machinery or other special equipment is included, a sheet is filled out for each call, so that the sales management may properly follow up the interview.

8. *Customer and Prospect Records.*

9. *Sales Bulletins.*

10. Free samples, customer catalogues, calendars, data books, and the like, are naturally not carried by the men.

*Service Men*<sup>10</sup>

It may seem a rather far cry from the individual car owner to the manufacturer of a device that is standard equipment on his car; it is a particularly far cry if the owner is located a thousand miles or more from the factory, and the example is even more extreme if the manufacturer dispatches a high-caliber man to adjust that one complaint, only to find that it is not due to the fault of his product at all. And yet, placing several men in the field for the sole purpose of giving such service has proved to be one of the best things the Skinner Automotive Device Company ever did.

For the past year or so, we have maintained four service engineers in the field, and the results of their work have proved so satisfactory that we are now planning to augment the service as soon as we train additional men for the work. These men undertake to call about once every two months on all distributors (and some of their dealers) of cars equipped with our product and are subject to call by any distributor at any time.

All are college men, with automobile experience, with special experience in servicing our product, and with pleasing personality. Their routine work is to call on the distributors for the purpose of finding out whether any owner is having trouble with our product and if so, to adjust it; if not, at least to get acquainted with the distributors and their organizations and cultivate their good will.

Our field men also tie up with factory representatives wherever possible and accompany them on trips through their territory.

All this is routine work that serves to insure satisfaction on the part of car owners, to gain and maintain the good will of the distributors and factory field men, and to keep us apprised of the performance of our device in service. It is the fundamental principle of making boosters

<sup>10</sup> From R. L. Skinner, president of the Skinner Automotive Device Company, *Sales Management*, January 22, 1927.



of users so that they will insist on having their cars equipped with our product, even though we sell to the manufacturers of cars only.

It is when some complaint arises and the distributor calls on us for help, however, that we go to the greatest extremes in giving service. Every such call is answered promptly, no matter where the complainant is located or at what expense to us. We have several times sent a man clear to the Pacific Coast or to New England, only to find when he got there that the trouble was caused by some minor defect in another part of the mechanism and in no way connected with the rectifier.

### *Samples*<sup>11</sup>

Purchasing agents and other buyers of machinery are apt to be long on specifications. A carefully written, well illustrated catalogue will tell them most of the things they want to know. What is wanted that the catalogue fails to contain can usually be learned from a sales representative of the manufacturer.

Sometimes, however, it is a sample of the work turned out by a machine which provides the initial impulse that leads to the signature of the P. A. on the order.

The P. B. Yates Machine Company, of Beloit, Wisconsin, is using the sample in a way that is out of the beaten track to generate this business—getting impulse. The company makes woodworking machines, among them the Yates A-7 disc head hardwood matcher for planing flooring.

An indirect way of promoting sales of this machine is to make the work it does so familiar and attractive to lumber dealers, contractors, architects, and builders of homes that they will specify flooring which has been finished by it. That is precisely what the Yates Company is doing with its A-7 sample book. It is to all appearances a book of something like a hundred pages, but when the reader has thumbed over about sixteen pages he runs into a surprise.

The rest of the book is really a back cover of cardboard built up solid. Out of this built-up section a rectangular space has been cut; fitted into this space are two samples from the regular run of a Yates A-7 matcher's finished work. One is a piece of oak flooring, five inches long and an inch and a half wide. The other is maple. The matcher has planed them so that they fit together perfectly. More emphatically than words or photographs could do it, these samples illustrate exactly what the machine does with the hardwoods most commonly used for flooring.

<sup>11</sup> From *Printers' Ink Monthly*, August, 1923, p. 122.



## TRADE PROMOTION

*Replacing the Used Machine*<sup>12</sup>

Since 1912, each year's sales of the Dreis & Krump Manufacturing Company, of Chicago, which makes steel bending brakes, have shown an increase over those of the preceding year. There are several reasons for this record, with its absence of postwar slump. But in the front rank of these reasons is the company's policy of never allowing a buyer of one of its machines to become "unsold" on it.

How this policy works out is shown by an incident that happened a year or two ago. Some time in 1912 the company sold a brake to a man in Sioux Falls, South Dakota. It gave complete satisfaction until a small part broke after twelve years of use. He wrote to the company about it and was sent a repair part. The cost of the part was about \$2, but no charge was made. The Sioux Falls manufacturer, expecting to pay for the part, was properly grateful and apparently the matter ended there.

About a year later, the man from Sioux Falls dropped into the company's offices. Before he left he ordered a new brake, bigger and more expensive than his old one. No one had to sell him. No other company has an opportunity to sell him.

The product that this firm makes is called a brake, but it bears no relation to mechanism for stopping or slowing down machinery, such as the brake on a vehicle. It is a device for bending sheet metal or steel plates. The tinsmith, the cornice maker, the metal box manufacturer, the railroad, the automobile maker, the boiler maker, and many others use brakes whenever they must bend sheets of metal. In short, a broad market for bending brakes exists, but the market when it is analyzed proves to be a thin market, for brakes do not wear out quickly. A well made brake will last a lifetime if it is operated with reasonable care. Once a buyer has a brake, he is not a prospect for another unless his business expands or some other development makes it desirable for him to buy a larger size. Ordinary replacement sales are negligible.

The problem that any manufacturer faces when his market is made thin by the durability of his product can easily become acute. He is confronted with the need of covering many different markets in some way that will not allow possible sales to slip through his fingers. As a rather general rule, the advertising appropriation is not big enough to let him put a very considerable sum into any one of the multitude of

<sup>12</sup> From *Printers' Ink Weekly*, February 25, 1926, p. 85.

industries that use his product. Then, if the product does not wear out and replacement orders come at long intervals, his distributors will not push sales with any great amount of emphasis.

Dreis & Krump have kept sales growing by a policy based largely on the following points:

1. Advertising in industrial papers that keeps their name and their product in front of the industries to which they can sell.
2. The use of every directory or register that is likely to be referred to by any buyer of a bending brake.
3. Direct mail advertising to lists made up from registers and trade directories.
4. Promoting good will with jobbers and dealers by a liberal policy of servicing and handling of complaints by the plants.
5. Promotion of jobbers' and dealers' sales activities by building a market for used brakes turned in toward the purchase of new brakes.

In actual selling the company competes to a limited extent with its jobbers and dealers. That is, it sells direct in some cases, principally in those cases where special brakes are required. The majority of sales are made by jobbers and dealers. Some of them carry stocks. Some simply list Dreis & Krump equipment in their catalogues. One plant man travels all the time, ready to help a jobber to sell or to adjust complaints at any time, in addition to doing a certain amount of selling. In spite of its policy of selling direct, the company gets a high degree of cooperation from jobbers. The jobbers' salesmen push Dreis & Krump brakes because they are confident that the company will service them and handle any complaints in a way that will satisfy the buyer.

Several years ago, when the company or one of its jobbers believed that a former customer was in a position to buy again, it was next to impossible to get the prospect warmed up over the idea of putting several hundred dollars into a new brake. "The brake I have is good for years of service. I can't scrap it. How am I justified in buying another when this one is still good?" That was the obstacle that stood in the way of sales growth until the company got the idea of letting a customer turn in his brake and receive an allowance for it toward the purchase of a bigger or higher-priced brake. From that time on, sales have set a new pace that has never slackened. The company and its jobbers began to build a market for used brakes. As a result, old customers who were shown a chance to get more business with larger and better equipment were willing to buy.

*Teaching Industrial Salesmen*<sup>13</sup>

Recently, our firm put out a new governor-controlled, portable elevator with enclosed gears. This is a piece of lifting machinery which can be moved from place to place as required. Inasmuch as it is rarely standard in construction, it presented a selling problem almost as complicated as the article itself.

As designing and manufacturing engineers, we could readily appreciate that the elevator, to be an outstanding success, must be built in nearly every case to conform to conditions existing in the plant where it was wanted. We could hardly expect to have these conditions conform themselves to the product.

Naturally enough, we sent our salesmen price lists containing all the figures they would need to inform a customer accurately how much any kind or size of portable elevator installation would cost. But this was not enough. We had to make sure that our men were acquainted with the general subject of portable elevators well enough to use this list in the right way. Moreover, it was needful that the men should know certain underlying principles having to do with application and installation. Otherwise, there would be much annoying and expensive delay before the new product could be put profitably and properly before the trade.

*Developing New Uses by Display*<sup>14</sup>

In April, 1927, the Bakelite Corporation, of New York, launched the Bakelite Caravan, to take to men who have a voice in specifying industrial materials visual evidence that Bakelite is all that is claimed for it by the makers. In the two months, seventeen cities were visited, and the results have been such that the Bakelite Caravan is to be made a permanent institution.

Allan Brown, advertising manager of the company, said of the new idea:

Our plan is to pick key cities in the various industrial sections of the country, engaging the facilities of a large auditorium in the central part of the city, and then mail announcements about two weeks in advance of the exhibition date to a picked list of manufacturers, engineers, architects, chemists, college professors, jobbers, and other key men who are influential in the buying of industrial materials and equipment. A day or two before the caravan arrives in the city, formal invitations are sent

<sup>13</sup> From *Printers' Ink Weekly*, January 7, 1926, p. 17.

<sup>14</sup> From "Bakelite Caravan Goes on Tour with an Exposition of Industry," *Class and Industrial Marketing*, June, 1927.



to this list. This states the time and location of the exhibit in each city.

Its purpose is not to sell the articles on display, but to reveal the possibilities of applying this material to almost every field of industrial activity. That is why we call it the Caravan of Ideas.

#### *Standardization and Cooperation*<sup>15</sup>

Standardization of parts within a manufacturer's own plant is not always easy of accomplishment. It is still more difficult to get a group of manufacturers, all of whom are competitors, to cooperate in standardizing on one of the major portions of the product. Yet that is just what milling machine manufacturers have accomplished.

Moved with the desire to eliminate waste in industry and to cooperate with Mr. Hoover in his general standardization program, engineers of three of the companies which finally adopted this new standardized feature worked together and in less than six months had agreed upon a new spindle end which was unlike anything heretofore used by any one manufacturer, although it retained the good features of each existing spindle end which was being used by the various manufacturers. This meant a sacrifice on the part of each manufacturer of what he considered to be a satisfactory part of his machine, this sacrifice being made in the interest of standardization and for the benefit of his customers.

Under the new standardization, the customer is going to be able to use one milling cutter on all sizes and types of milling machines adopting this new spindle end. In the past, it was necessary for him to have a different set of cutters for each milling machine which he used. This means that cutter manufacturers can standardize on the manufacture of their cutters, reducing their costs, and that the user can reduce his inventory of cutters, materially cutting down the expense of carrying cutters and arbors.

About three months before the final agreement had been reached with regard to all details connected with the perfection of the new standard, a committee was appointed, consisting of the advertising managers of three of the milling machine companies. They were instructed to work out a comprehensive publicity campaign.

This publicity program was based on business journal advertisements, editorial comments, and direct mail advertisements, and a tie-up of the space used by each manufacturer with cooperative advertising placed in industrial journals by the committee. . . . Inasmuch as arbors and cutters which could be used on one milling machine could now be used

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<sup>15</sup> From Frederick B. Hertzcamp, "Competitors Cooperate to Standardize New Machine Part," *Class and Industrial Marketing*, May, 1927.



on all, it was in the interest of each milling machine manufacturer to emphasize this point to prospective customers. In one advertisement, the manufacturer pointed out on the left-hand page of a spread the care and accuracy with which his arbor is made, and on the right-hand page indicated that he had cooperated with the new standardized project. Attention was also called to the fact that arbors of his manufacture can be used on milling machines of any other type which adopted the new spindle end. Other milling machine manufacturers produced advertisements which tied in with the general scheme.

Simultaneously with the announcement through business journals of the new standardized end, the various manufacturers conducted a concentrated and extensive direct mail campaign. Here again, an attempt was made to emphasize the interchangeability of products and to bring home to the user the advantages of the new standardized spindle. With one piece of literature was sent a government post card to encourage the prospective user to send in for a new specially prepared book which described the manufacture of arbors in great detail.

Other means taken to bring particular types or makes of arbors to the attention of the trade were the use of stickers for correspondence, stencils for shipping boxes, tags to be placed on the arbors themselves, and blotters to be sent out with correspondence, to be distributed by salesmen, and to be used in the mail.

This standardization move is one of the most important ever attempted in the machine tool industry, and it is predicted that it will be a forerunner of further standardization projects in behalf of users of machine tools. The success of standardization has been greatly aided through this thorough, cooperative publicity plan.

### ADVERTISING INDUSTRIAL EQUIPMENT

#### *Advertising to Help Sell Heavy Machinery*<sup>16</sup>

The manufacturer of heavy machinery spends a smaller percentage of his gross sales for advertising than any other class of manufacturer. The heavy machinery manufacturer (and by this I mean one whose product sells for \$5,000 and upward) cannot afford to spend such a large percentage as the shoe manufacturer or the canned goods packer.

In the first place, the market for heavy machinery is a very thin one. The potential customers are usually well known, and a limited amount of well directed advertising can cover the field nearly 100 per cent.

<sup>16</sup> From *Printers' Ink Weekly*, April 3, 1924.

A second factor which the machinery manufacturer must keep constantly in mind is that his selling costs are necessarily very much higher than those of the manufacturer of low-priced goods.

The chewing-gum or canned soup manufacturer can create a market for his product, but generally speaking the traveling crane or hydraulic turbine manufacturer cannot. If he could create a market, the cost would be so excessive that there would be no profit. However, the machinery manufacturer by advertising can keep the merits of his product before the user at all times, and when the opportunity for a sale does come, his product will be well and favorably known and he will probably get a chance at the business which is let.

A market can be created for a new product which will cut production costs. If a new machine is brought out which will reduce by one-half the time, let us say, for machining an automobile flywheel, beyond a doubt advertising can create a direct market for this machine which will result in sales.

When the salesman for a well advertised product sends in his card to a prospect, he is usually welcomed as the representative of a favorably known company. Once admitted into the office of his prospect, the salesman does not need to waste his valuable time selling his company. He can spend the time selling the product.

Bulletins are valuable, first, because they are an authentic source of information for the sales force. Secondly, the bulletin can do missionary work at the very lowest possible cost. A salesman at best can make but a few calls a day, but a bulletin can make hundreds or thousands if it is so desired.

I know one machinery manufacturer who spends large sums of money on his publication and direct mail advertising, but who has stunted his bulletins so that they are really of very little value to his sales force. As a result, he gets a great many inquiries, but the percentage of inquiries that he closes is much less than the average for this class of machinery because his bulletins do not sell.

Where machinery of standard types is built complete, clearance diagrams should always be given. Such information is always invaluable to architects and engineers, who must take into account machinery clearances when designing buildings.

Working installations are also of invaluable assistance. Great care should be taken that installations are selected from various parts of the country instead of getting a large number from one location. Testimonials and lists of customers should always be included in a bulletin.

If an advertiser can show that some of the largest and best people in the world are using his product, that is one of his best talking points. If there are many repeat orders, this also should be mentioned.

*Length of Service a Selling Point*<sup>17</sup>

In the constant fight to keep down production and operation costs, long-lived equipment is no mean weapon, and the makers thereof are the great and good friends of industry. Advertisers of such equipment are allies also, especially when they bring their message in such easily understandable and convincing fashion that prospective purchasers are spared further search and costly experimenting by the simple act of grasping the argument and ordering the product.

On running through current advertising with this feature in mind, a striking fact soon becomes apparent. The durability argument and especially the visualizing of it, is employed in machinery advertising to a much greater extent than in any other field. Very little of it seems to escape into other fields. Doubtless that fact is to be explained by the habitually accurate and close-figuring mental attitude of both the authors of that class of advertising and the audience to which it is addressed. Both classes are likely to be made up of engineers, and both are likely to have cost accountants at their elbows, so there is no overlooking the fact that into every piece turned out by a machine and finished for the market, a definite fraction of the price of the machine and the expense of its upkeep enters as a cost factor, plus the entire cost of spoiled pieces.

To be able to show a planer "25 years in service and still at it," as the Bethlehem Steel Company does, and show it, not dilapidated and crippled, but trim and evidently unweakened, means vastly more than the mere showing of an interesting relic of the industrial past.

"A 14-year-old installation" of a Cleveland automatic machine is photographed in operation in much the same manner as the Bethlehem planer already mentioned. The first Libby lathe, "photographed after 12 years in service," Landis threading machines with "12 years of satisfactory service" to their credit, automatic buffing machines in use "15 years and still going strong," are all examples of the effort to translate long serviceability into printers' ink for the eye to see.

*Use of Scientific Tests in Selling*<sup>18</sup>

Practical demonstrations, experiments, and scientific analysis, once

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<sup>17</sup> From *Printers' Ink Weekly*, December 13, 1923, p. 97.

<sup>18</sup> From *Printers' Ink Weekly*, March 4, 1926.



reserved for laboratory work or periodically staged for the benefit of groups of interested prospects, are now the order of the day in industrial magazine campaigns. The laboratory department at the factory has been taken into what might be termed an advertising partnership, supplying facts and figures which often form the basis for entire campaigns.

The writer was permitted to examine a series of brief cases made up for the salesmen of a great industry specializing in certain castings for factory use. Of prime interest were the sets of large photographs, made into portfolio form, nine prints to a portfolio. These photographs had been made under the direction of the company's laboratory head and were wonderful enlargements from microscopic studies. Different grades of steel and iron had been camera-illustrated, their strange porous surfaces dilated thousands of times in order to clinch vital mechanical facts.

The salesman could produce these portfolios and prove everything he said about his own product. Each set was duly signed by the laboratory head in the presence of a notary. It was a businesslike document. In addition, these brief cases held leather compartments for cross sections of small bits of casting.

Both in their advertising to the trade and as invaluable ammunition for salesmen, this idea is rather generally practiced today.

The United States Silica Company employs microscopic camera studies to secure conviction. These prints, either as the illustrations for industrial journal campaigns or in the brief cases of salesmen, have been exceedingly helpful.

The salesmen and the advertising of the Harrisburg Pipe and Pipe-Bending Company profit by the use of laboratory experiments and the shrewd, convincing eye of the microscope. "Our research department," states one industrial journal advertisement, "is continually engaged in the service of customers, who profit by its findings and opinion. Here, steels are tested under actual working conditions to determine the formula best adapted to the requirements of the finished articles. With the aid of completely equipped chemical, physical, and photographic laboratories, our metallurgists have been the means of saving customers thousands of dollars by increasing the efficiency of both their production and their products."

### *Pictures Now Strengthen Text*

In the advertising and selling of Empire new process bolts, the camera, the microscope, and the laboratory join in an effort to illustrate features and problems which it has been possible only to describe before.



Comparative photographs bring out the one important argument, namely, the difference in the threads of modern bolts. These pictures might mean little or nothing to the average person, but to engineers they are far more compelling than the most ambitious human interest illustration. They are literally packed with interest.

In order to prove that McQuay-Norris piston rings are free from "snakiness," small face plates coated with Prussian blue are supplied to salesmen. Their surfaces, of course, are perfectly even. Any imperfection would immediately show on the painted face of the plate. The demonstrator puts a piston ring on this little stand and presses it down with his finger. This flatness means perfect side-fit in true ring grooves. "Snaky" rings cannot fit the grooves perfectly, as experts know.

Salesmen, on specified schedules, are permitted to take with them a fabric gear which has been in steady use for 62,000 miles. The authentic affidavits and facts are attached. It is in absolutely perfect condition, with no wear visible, even when measured or weighed in a laboratory. Naturally, it makes a profound impression upon the prospect. A picture of this gear was also used in large size in automotive journals.

These tests are all a part of a modern trend. People are more exacting, more inquisitive, more inclined to have proof presented.

#### *Price Appeal Not Stressed*<sup>19</sup>

Manufacturers of heavy machinery and industrial equipment do not, as a rule, sell their goods on a price basis, even when the manufacturer has a price advantage. That is unquestionably the reason why advertisers in the machinery field do not publish their prices more frequently.

Formulating an advertising policy around a price policy has proved hazardous even in the general field; *vide* Ingersol, "the watch that made the dollar famous," and many other cases where rising costs made an increase in price—and many explanations—imperative. In the industrial field, the price policy must be arrived at without regard to the advertising policy, whether the product is purchased for consumption, like sheet steel or wire, or for service, like a machine. Regardless of whether price is to be featured in the advertising, every reputable and established company should have a price policy, and does, depending upon the nature of the business.

There is the kind of equipment which can be made up in quantity for stock, which can be illustrated in a catalogue and priced per each and per dozen. There is the other kind of equipment which is built

<sup>19</sup> From *Printers' Ink Weekly*, February 11, 1927, p. 129.

entirely on special order, where the price is arrived at by means of an estimate. Between these two extremes is the piece of equipment or machine that is partly stock and partly special, or where a special assembly is made of stock parts, where fixed prices can be quoted for parts and certain operations, all of which adds up to a different total for each customer.

### *Inquiries Important in Industrial Selling*<sup>20</sup>

Nowhere is the inquiry for literature or for general information so highly prized as in the technical field.

The technical inquiry—the inquiry for more information about machines or devices used in the industrial world—is in a very different class from that which comes to any other sort of manufacturer. As a rule, almost any sale implies a large sum of money, and while competition is possibly less keen, orders are less frequent. The result is that the inquiry of a purchasing agent or engineer has a high value in the technical field. Nobody in the field is unmindful of the fact, and a few are doing something about it. These few have taken the inquiry-inviting line out of its obscure 10-point type, located just above the signature in the copy, and staged for it special importance by making it the main theme of the copy.

### *Pictorial Advertising*<sup>21</sup>

Little doubt exists that industrial advertising is undergoing change. The fat, overdressed, verbose copy that used to peer up at us from the almost white-spaceless page is passing out.

A few of the pioneers in pictorial concept are worthy of note. The Wyman-Gordon Company, maker of forgings and owning especial repute for its automobile crankshafts, has adhered to this style. One of the recent advertisements released by this company shows how effectively the wood-cut illustration may be used in retelling a story already fairly well known among automotive engineers. Actually, there is no copy except the picture, and the caption, "Made at Crankshaft Headquarters," is an implication of quality without the superlative motive that so often merely defeats its purpose.

A particularly interesting example of instance copy is that of the Hoskins Manufacturing Company. "Why Cadillac Uses Hoskins Furnaces," which pictures a Cadillac worker using the furnace, makes an excellent advertising story. The first paragraph does more to stimulate

<sup>20</sup> From *Printers' Ink Monthly*, August 23, 1923, p. 35.

<sup>21</sup> From *Printers' Ink Weekly*, July 19, 1923, p. 61.

interest in the Hoskins product than could ten times as much text written on the archaic theme of the catalogue.

The Brown Hoisting Machinery Company does this instance copy in all publicity. In an excellently pictured page, this company shows its product at work. The heading, "Saving \$10,000 in Sixty Days," tells the story of how the Shartle Machine Company used a Brownhoist Crane on a big contract at Nitro, West Virginia, and concludes with the statement that this user will be glad to tell prospective purchasers of this crane something of the deep satisfaction and labor-saving profit that came out of its use.

Compare such a story with the lame, boresome, uninteresting page of "informative" copy that for so many years was traditional in the technical market. Is there anything to compare?

### *Popularizing Industrial Copy*<sup>22</sup>

Advertisers of industrial and technical products are prone to forget that not all their prospects are engineers, and that to these men much of the technical copy addressed to them is not only uninteresting but so much "Greek."

Such prospects must be talked to in everyday language, interestingly; not in what is to them the jargon of the engineer.

Until the fall of 1926, we were one of many companies trying to tell a technical story in our advertising to executives who, for the most part, were not interested technically. We knew they wanted to find out how to heat their plants scientifically, but we also knew by test that our product did not register graphically in their minds as a device that would solve their problem. For we had tried various men who ought to have been interested in the York unit heater and found that few even knew what the term "unit heating" really meant. Usually they confused it with a central heating apparatus—thought it was a boiler or a stove.

About seven or eight months ago we decided that to make our product mean something definite to prospective customers we would have to call it by a name which would build a quick mind picture. We would have to find some term that would immediately enable the consumer to classify our unit as a device for radiating heat.

In the end we found a term which, to us, seemed to describe the heater graphically—"York Heat-Diffusing Unit."

The next step was to build our advertising around this idle heat

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<sup>22</sup> From Thornton Lewis, president, York Heating and Ventilating Company, *Printers' Ink Weekly*, June 9, 1927.



phrase and to create a graphic campaign which would carry a clear-cut message to the least technical of executives. As the old heating idea was to use a building as a container and pour hot air into it, it seemed to us that we could effectively reach prospects if we pictured simply and clearly to the non-technical executive how our diffusing unit would cut heating cost by putting warm air into his building scientifically. We would draw an easily understood comparison, with one or two plain diagrams, to show the old way and the new. We would stress fundamentals.

This was very different from the way we formerly had told our story. Previously, we had gone to the technical man with a portfolio of technical results, under such caption as "The plant manager says his place is heated better than before." We had featured smaller costs of York installation and operation, and we had used ordinary photographs of actual installations.

#### *Collateral Advertising*<sup>23</sup>

There are a good many firms who manufacture materials or parts that lose their identity or are hidden from view in the final product purchased by the customer. A large number of these firms have considered advertising unwarranted because of these reasons. However, in the past few years, there have been a few firms of this character who have broken away from traditions and, through intelligent advertising, have created good will values for their respective trade names worth millions of dollars.

When a concern makes a material or a part that possesses certain advantages, due either to efficient manufacturing methods, a well trained organization or the use of the best grade of raw materials, it has a rightful ambition to let these things be known, in an attempt to establish a reputation of quality for the trade name under which its products are sold. The extent of such advertising, of course, depends considerably upon the product and its markets and uses.

The use of some products lies solely within the bounds of the industrial field and in such cases the manufacturer has confined his advertising efforts to the industries which offer the largest possibilities. On the other hand, we see such firms as the American Rolling Mills (Armco ingot iron), Timken Roller Bearing Company (Timken bearings), and Bakelite Corporation (Bakelite products), going beyond the straight industrial field to the jobber, the dealer, and in some cases to the public.

<sup>23</sup> From Allen Brown, "Collateral Advertising for Some Widely Known Products," *Industrial Marketing*, February, 1927.



Advertising of this character results in accumulated collateral advertising contributed by the customers who use their materials or parts, and it works both ways for the material manufacturer. It establishes a recognition of quality and performance for his product, and the manufacturer of the finished article, appreciating this, adds a valuable selling point by featuring the trade name of the material or part.

To illustrate how this actually works, there recently appeared, on the counter of a large electrical dealer in New York City, three items, none of which could be called competitive with the other. One was a percolator, another an electric iron, and the third a switchplate. All three had at least one thing in common—all featured the use of Bakelite as part of their sales message. In one sense, one helped to sell the other.

Manufacturers introducing a new product frequently feature the well known material of which it is made, as they have found it helps them to establish a recognition of quality for their own product and at the same time breaks down a certain amount of sales resistance. Time and time again, manufacturers confronted with the choice of two or more similar materials choose the one that is better known in order to establish a reputation for their own product more quickly.

One indication of the way collateral advertising has grown is revealed in the statements made by a number of material and part manufacturers. One concern states that it has over 1,000 customers advertising the use of its product, another has 700 customers on its collateral advertising roster, and one material manufacturer considers the advertising carried on by 2,000 of his customers worth about \$10,000,000.

There are many collateral advertisers who not only feature the trade name of the material or part, but actually place an identification tag or label on their finished product. This is by far the most direct way of taking advantage of the material or part manufacturer's broad, educational advertising campaigns.

The more applications there are for a material or part, the more complicated the advertising problem becomes, and in some cases we find manufacturers using industrial, trade, and class mediums as well as direct mail, bill boards, radio broadcasting and motion pictures, in fact, almost every medium known to advertisers. Special funds are frequently held in reserve to serve as "shock troops" in the development of new fields and to meet the competition of other materials and parts.

The fact that each year more and more collateral advertising is being used gives proof that the educational campaigns of the material and part manufacturers are sound.

MACHINERY EXPORTS<sup>24</sup>

While it is possible to imagine any number of different forms of organization that might be employed in the sale of American machinery in foreign countries, the problem is really very simple, for industrial machinery sold abroad, whether American, European, or of other origin, is usually marketed through the machinery dealers who are established in the various foreign cities and who act as import merchants. Usually, the problem of developing an organization abroad consists in establishing and maintaining the best possible contacts with these dealers.

It is important that a definite foreign sales policy be established. This policy may not be the same for the varying conditions of different territories, but in each case it should be definitely decided whether the manufacturer will quote only f.o.b. works, f.a.s. New York (or other port), or c.i.f. destination; whether he will open a branch, send his own salesman, grant an exclusive sales representation, or operate in an open market.

*Selection of a Distributor Abroad*

There is a great difference in firms. To a remarkable degree, each develops a bent for a certain kind of trade. Each has its own business methods, its special clientele, and a certain line of work that commands its attention, and it will prove correspondingly more or less valuable in selling a given commodity. For instance, if a firm specializes in machine tools, unless elaborately organized, it will give inferior results in the sale of textile machinery or ice plants. The direction of this bent can often be discerned from a study of the list of the lines it handles (often on file in the Bureau of Foreign and Domestic Commerce). From time to time these firms may discover special opportunities because of which they may want what might be called an "outside line," but the interests of the manufacturer lie with the dealer who will give his line consecutive sales effort.

It is not usually advisable to grant agencies to foreign firms. Experience shows that it is somewhat dangerous. Entirely apart from those who deliberately act in bad faith, it is very seldom that foreigners sufficiently appreciate the merits of American designs to represent them properly. They do not adequately understand American ideas of economy of labor, speed in production, standardization of method and product—in short, the work of a production man. Their sales and

<sup>24</sup> From *Developing Machinery Markets Abroad*, Bureau of Foreign and Domestic Commerce, United States Department of Commerce, 1926.

advertising methods differ from those followed by Americans, making it difficult to link up the plans of the foreign office with those of the home office. These remarks apply with peculiar force in English-speaking countries.

In territories where sales are to be made to those unfamiliar with English, good results can sometimes be secured through foreign representation, not because the above remarks do not apply, but because it is difficult to find Americans who are sufficiently familiar with the foreign language and ideas. In Japan, a Japanese firm undoubtedly has certain advantages in the appeal it can make to persons of that nationality. In Java, the Dutch have a similar advantage. But even under these favorable circumstances it will be found difficult to Americanize the sales campaign. In selling engineering equipment in these markets the salesman sells American ideas as much as he sells American machinery. The outstanding problem in working through these foreign firms will be to convince the ultimate buyer of the superiority of the American method—to arrange for one Japanese to persuade another Japanese to adopt American methods in his shop or to manage so that one Hollander persuades another Hollander to adopt American practices. It is always very desirable to arrange to have the representative employ a good American salesman, preferably one who has been trained in the plant of the manufacturer.

### *Terms of Payment*

Before and since the World War, many articles have appeared in the press on the subject of export trade which have given special emphasis to the matter of the terms that should be granted, and it would appear that so far as machinery is concerned, a great deal of confusion has arisen. In this way a situation has developed that makes a better understanding desirable.

In the first place, it should be recognized that practically all machinery represents a capital investment, as contrasted with hardware, haberdashery, and other classes of commodities that pass directly into consumption. As good banking makes it necessary for lending institutions to maintain their accounts in liquid form, if possible, it is perfectly obvious that a banker is justified in restricting his loans in so far as they apply to machinery. It will also be recognized that the ordinary machinery manufacturer will not have sufficient capital invested in his business to justify him in tying it up for long periods.

It is undoubtedly to the interest of the manufacturer of standard

lines of machinery to have his foreign representative keep on hand a reasonable stock of such equipment as is regularly in demand, in order that buyers may secure prompt delivery, may have the privilege of inspecting the goods before purchase, or may even see the equipment in operation. This method of doing business has some further advantage, and although it is ordinarily desirable that the foreign machinery dealer invest sufficient capital in his enterprise to cover the cost of these stocks, there are also circumstances where it is to the interest of all concerned to allow this dealer a reasonable amount of time before it is necessary to tie up his capital in such equipment.



## INDEX



## INDEX

## A

## Advertising

Advertising		risk bearing in the aluminum market	632
—automobile tires	685	price fixing in the aluminum trade	633
banana—a recent development	306	marketing aluminum products	634
branch offices really—headquarters		“Wear-Ever” aluminum trade-mark	635
in the tobacco business	617	demonstrations in the aluminum goods	
—candy	507	field	635
Cheney Brothers—silk	459	direct-to-consumer distribution	635
—citrus fruit	270	jobber distribution of aluminum products	635
collateral—of equipment parts	724, 725	retailer distribution of aluminum	
—competition in the tobacco field	620	products	635
cooperative—of flowers	509	turnover of aluminum utensils	636
—cranberries	281	grading of aluminum products	637
direct by mail—of industrial equipment	706	American Cotton Growers' Exchange	120
Fleischmann Company and bread—	543	American Tobacco Company	614, 617, 618, 622
—glass	501	Analysis gasoline market	386
good-will copy for—tires	686	Anthracite market	317
heavy summer—of tires	686	Appeal	721
—in the aluminum industry	629	price—not commonly stressed in	
—in the baking industry	543	industrial equipment	721
—in retail shoe stores	661	Apples	
—industrial equipment	714, 717, 718	barrelled apples	248
length of service—industrial equipment	719	consignment of apples to commission	
linen damask manufacturers—	447	houses	249
—lumber	359	sales of apples through brokers	250
—men's clothing	642	Western New York apples	250
—millinery	464	south eastern apples	250
national—of soap	604	Great Lakes apples	250
—of tobacco products	616, 620	early apple regions	251
—off-season sale of flowers	511	bulk shipment of apples	252
—oriental rugs	468	cold storage of apples	252
popularizing industrial copy	723	foreign apple trade	253
—radio	694	apple exports to United Kingdom	253
—rayon	430	export season for apples	253
ready-cut house—	362	apple exporting practices	253
research departments prepare copy		western boxed apples	254
for—industrial equipment	720	geography of boxed apple production	254-5
“Say it with flowers”	511	cooperative marketing boxed apples	255
—sheet steel	331	dealers in boxed apples	256
—shoes	655, 656	brokers for boxed apples	256
syndicates for bakery—	541	boxed apples auctioned “F.O.B.”	257
—tea	565, 566	transportation boxed apples	257
—textiles	414, 415	water transportation of boxed apples	258
Agents		storage of boxed apples at shipping	
estate—in raw rubber trade	390	point	259
export—for glass	502	cold storage boxed apples	259
general sales—in the canning trade	528	sales of boxed apples in city markets	260
mill—in flour distribution	572	typical carload of boxed apples	260
sales—an integral part of canner's		boxed apples at auction	261
organization	529	jobbers heavy buyers of boxed apples	
sales—for coal	311	at auction	262
sales—in anthracite trade	312	varieties of boxed apples for export trade	262
sales—used in salmon marketing	534	British port auctions of apples	263
selling—and brokers for window glass	499	North European markets for apples	263
Agency buying of export cotton	127	grading boxed apples	264
Aluminum and Aluminum Products		sizing machines for apples	265
geography of aluminum products	627	inspection of boxed apples	265
competition within the aluminum		financing the apple market	266
industry	628	Arbuckle Brothers coffee roasters	550
distribution of ingot aluminum	628	Argentina	
importation of ingot aluminum	628, 631	—exports corn to Europe	95
The Aluminum Company of America	628	marketing—wheat	90
distribution of semi-finished aluminum	628	Armour and Company and the canning	
monopoly control in the aluminum		industry	526
industry	628	Assembly center for tires	682
“direct quotation” method	629	Association	
advertising in the aluminum industry	629	—advertising lumber	360
direct shipment to consumer from		associative sales range wool	133
factory	630	advertising sheet steel	331
standardization of aluminum	630	Colombo rubber traders—	391
freight rates on aluminum	632	Colombo rubber traders—trading rules	391
		cooperative advertising of flowers	509

Association (*continued*)

copper export—	338	banana steamers	301, 302
Florists Telegraph Delivery—	513	banana ports	302
furniture trade—	470, 475, 476, 477	inspection of bananas at seaboard	303
grocery buying—	521	rail transportation of bananas	303
independent oil producing agency	388	care of bananas during rail transportation	303
linen damask manufacturers advertise	447	auction sales of bananas in the East	304
—lumber manufacturers	359	the banana jobber	304
—lumber retailers	358	banana storage rooms	305
Portland cement—	368, 375	retail handling of bananas	305
rayon knitted fabric—	431	Fruit Despatch Company banana selling organization	306
regional—grain producers	84	United Fruit Company dominant in banana trade	306
retail furniture—	476	banana advertising a recent development	306
rubber trade—of London	391	New Orleans the largest banana port	307
rubber—of America fixes trading rules	391	Barley	
United Drug Company—	487	grades of—not well established	98
<i>see also</i> Cooperation		Milwaukee leading—market	98
Auctioned		<i>see also</i> Grain	
boxed apples auctioned "F.O.B."	257	Baskets for peaches	275
Auctions		Bermuda onions peak shipments in summer	287
Australian wool	138	Bids	
British port—of apples	263	—and offers in grain market	78
boxed apples at—	261	closed bid tobacco auction	157
closed bid tobacco—	157	"Blood" terms used in wool grading	144
European—for hides and skins	147	Boards of trade set grades for flax seed	102
fruit—companies	231	Book paper	400
London—, imported hides and skins	147	Boston, second largest wool market	140
London wool—	138	Branch houses	
loose leaf tobacco—	155	—in farm implement trade	690
packed tobacco at public—	157	—in flour market	572
—sales of bananas in the East	304	—manufacturing establishments	582
tea sold at—	568, 569, 570	—in the packing industry	580, 582
textile—	406	Branch offices really advertising headquarters in the tobacco business	617
Australia a competitor in the raisin market	297	Branches	
Australian wool sales	138	sales—for automobile tires	680
Automobiles		Branded	
retail organization for automobiles	665	—hosiery	646
style in automobiles	670	millinery types not branded	464
price maintenance and trade-in values in automobile market	671	Branding	
installment sales of automobiles	672	—coffee	551, 554, 558
automobile shows	672	—of tobacco products	616
sales organization Ford Motor Company	673	misbranding of furniture	477
automobile accessories	675	misbranding of textiles	448
saturation in automobile market	677	Brands	
export markets for automobiles	678	—in canned goods	576
retail selling of motor trucks	678	—in the flour industry	572
Automobile accessories	675	—in the salmon trade	535
Automobile Tires		—of tea	565, 566
sales branches for automobile tires	680	—of textiles	415
selling automobile tires direct	680	—and trade-marks for dry goods	445
jobber not so important in automobile tire trade	681	chain stores and private—"Eatmore"—of cranberries	520
assembly centers for tires	682	jobbers—on hosiery	281
automobile tire service stations	683	Squibb brand a guaranty of purity	646
prices and competition in automobile tire trade	684	Sun-Maid brand of raisins	487
terms of sale for automobile tires	685	Bread and Bakery Products	294
advertising automobile tires	685	commercial baking a large-scale industry	539
farm paper advertising for automobile tires	685	retail stores distributors of baking goods	539
heavy summer advertising of tires	686	direct selling bakery goods	539
good-will copy for advertising tires	686	bakery chain stores	539, 540, 541
standardization of rubber tires by trade association action	686	cash and carry in the baking industry	539
government specifications for tires	686	wholesale bakers	539
		transportation of wholesale bakery goods	539
		house-to-house selling of bakery goods	540
		over-the-counter selling of bakery goods	540
		bakeries operated by grocery chains	540
		cake, production of	540
		consolidations in baking industry	541
		seasonal influence in baking industry	541
		packaging bakery goods	541
		syndicates for bakery advertising	541
		display of bakery goods by retailer	541
		truck distribution of bread	541
		competition in the bread industry	541
		commissions paid truck drivers in baking industry	541

## B

Bakery products, *see* Bread

## Bakery cake, production of

## Bale, the cotton—

## Bananas

## standard bunch of bananas

## care in handling bananas

## classes of bananas

## harvesting bananas

## local transportation of bananas

## loading the banana cargo



Bread and Bakery Products (*continued*)

grocery stores distributors of bread	542	Buying	
delivery costs in bread distribution	542	—cotton for export	126
advertising in the baking industry	543	grocery—associations	521
Fleischmann Company and bread		quantity—by chain stores	521
advertising	543		
legal aspects of baking industry	543	C	
weights of bread	543	Call board prices for butter	218
municipal regulation of bread trade	543	California	
sanitation in the baking industry	543	—Associated Raisin Company	294
"tolerances" on bread standards	544	—Fruit Growers Exchange	267
labels in the bread trade	544	—Packing Corporation and the canning	
moisture content of bread	544	industry	526
stale bread	544	Canadian coarse grain pools	85
consolidation in the bread baking industry	544	Cancellation	
Ward Food Products Corporation and		—of future contracts in grain	76
the Sherman Anti-trust Law	545	—of orders	640
Bremen as a cotton market	126	—of orders in hosiery trade	648
British regulation of raw rubber exports	393	—of orders for textiles	410
Broker		Candy	
—a source of market information in the		candy retailer	503
canning trade	529	candy jobbers	503
breaking down car load lots a function		drug and grocery jobbers handle candy	503
of the merchandise—	530	seasonal demand for candy	504
central market fruit—	231	competition in the candy trade	504
coal—	311	advertising candy	507
cotton goods—	412	distribution of candy in Philadelphia	507
foreign and local raw rubber—	390	holiday demands for candy	508
—for boxed apples	256	Canned Goods	
—(ordinary) in the canning trade	528	geography of canning industry	524, 526
—in canned goods	524, 526, 527	broker in canned goods	524, 526, 527
—in the coffee industry	551	wholesale grocers handle canned	
—in flour distribution	572	goods	525, 527
—in the marketing of meat packing		meat packers and the canning industry	525
by-products	591	"consent decree" restricts packer in	
—in the packing industry	580, 581	canned goods trade	525
—labels in salmon industry	536	meat packers handling all types of	
"merchandising"—in the canning		canned goods	526
trade	528, 530	Libby, McNeill and Libby and the	
metal—for copper	334	canning industry	526
the—and financing the canning		Armour and Company and the canning	
industry	527, 529	industry	526
the—as a commission merchant	527	California Packing Corporation and the	
the—in the coffee industry	548	canning industry	526
the—in the hide and skin trade	151	raw materials a factor in location of	
the—in the tea trade	567	canneries	526, 533
sales of apples through—	250	brands in canned goods	526
selling agents or—for window glass	499	"general line" packers	526
"sub-brokers" in the canned goods trade	529	packer's representatives in the canning	
—used in salmon marketing	534	industry	526
Brokerage		retail grocer handles canned goods	527
—charges in the canning		chain stores handlers of canned goods	527
industry	528, 530, 531	mail-order houses handle canned goods	527
—charges, sugar	597	financing the canning	
—charges in salmon marketing	535	industry	527, 529, 530, 532
—in the sugar industry	599	the broker and financing the canning	
Washington Logging and Brokerage		industry	527, 529
Company	346	the broker as a commission merchant	527
Bucket shops, grain	80	"merchandising" broker in the canning	
Built-to-order furniture	478	trade	528, 530
Bulk		brokers (ordinary) in the canning trade	528
—handling of grain	60	general sales agents in the canning trade	528
—shipment of apples	252	commission merchants in the canning	
Bureau of Geological Survey	337	trade	528, 530
Burley Tobacco Growers Association	161	price making mechanism in the canning	
Butter		trade	528
basis for—prices	225	future prices in canning trade	528
call board prices for—	218	brokerage charges in canning	
cooperative creameries	226	industry	528, 530, 531
distribution of creamery—	216	"sub-brokers" in the canned goods	
federal—inspection service	224	trade	529
imports of—from Denmark	227	territorial marketing in the canned	
—prices	218	goods trade	529
—scores and grades	224	brokers a source of market information	
three types of creameries	217	in canning trade	529
—trade of Chicago Mercantile Exchange	218	sales agent an integral part of canners'	
see also Dairy products		organization	529
Buyer			
the wool "buyer"	141		

<b>Canned Goods (<i>continued</i>)</b>		
selling agencies in the canned salmon trade	530	
commission paid in the canning trade	530	
breaking down car load lots a function of the merchandise broker	530	
jobbing not an important function of merchandise broker	530, 531	
future selling in the canned goods trade	531	
making a price in the canning trade	531	
canner contracts	531	
futures in canned goods marketing	531, 532	
"pro rata contract" in canned goods industry	532	
delivery of canned goods on "pro rata contracts"	532	
price differential in future and spot prices	532	
peas in the canning industry	532	
tomatoes in the canning industry	532	
sweet corn in the canning industry	532	
geography of pea canning	533	
grades of salmon	534	
geography of salmon production	534	
brokers used in salmon marketing	534	
sales agents used in salmon marketing	534	
brokerage charges in salmon marketing	535	
labels—salmon trade	535	
brands—salmon trade	535	
brokers' labels in salmon industry	536	
jobbers' labels in salmon trade	536	
packers' labels in salmon industry	536	
costs of salmon marketing	536	
"opening prices" in the salmon industry	537	
"Opening Prices" in the salmon industry	537	
price making in the salmon industry	537	
future prices in the canned salmon trade	537	
purchase contracts for canned salmon	537, 538	
<b>Car-lot</b>		
—receivers of onions	288	
—wholesalers of fruits and vegetables	229	
"Car peddler" of fruit	236	
"Case count" for eggs	194	
Cash and charge sales of shoes	661	
<b>Cash and carry</b>		
—in the baking industry	539	
meat distributed through cash and carry stores	588	
<b>Catalogs</b>		
—for tea	567	
—important in furniture trade	473	
hardware—	480	
<b>Cattle</b>		
<i>see</i> Live Stock		
<b>Cement</b>		
"Portland" cement not a brand	364	
geography of cement production	364	
distribution of cement	364	
competition in cement trade	365, 366	
standardization of cement	366	
cement prices F.O.B. delivery point	366	
seasonal trade in cement	366	
contracts for cement	367	
standardization of cement	368	
Portland Cement Association	368, 375	
cement trusts	368	
specific job contract for cement	369	
cement trusts, England	370	
cement prices	373	
delivered prices for cement	373	
future delivery contracts for cement	373	
imports of cement	376	
<b>Central markets</b>		
—of the coffee industry	552	
—in the tea industry	566, 567	
<b>Chain stores</b>		
—and private brands	520	
—and the meat trade	587	
<b>bakeries operated by grocery chains</b>		540
bakery—	539, 540,	541
chain department stores		452
chain dry-goods stores		455
—controlled by the manufacturer		617
chain hardware stores		485
chain type of retail coal dealer in the Northwest		314
grocery chains		510
—handlers of canned goods		527
—in the coffee trade	551, 556,	558
line lumber yards		347
Radio—		697
Rexall chain of drug stores		487
the—and clothing		433
<b>Channels</b>		
—for collection of wool		128
—of sale for hogs		172
<b>Channels of distribution</b>		
by-products introduce market structure		
—variations		591
—of shoes		652
Chattel mortgages on furniture		474
<b>Cheese</b>		
basis for—prices		226
cooperative—factories		226
—dealers		219
distribution of—		218
—imports		227
pasteurized and package—		220
types of—		219
<i>see also</i> Dairy products		
Chemical analysis of steel		328
Cheney Brothers advertise silk		459
<b>Cherries</b>		
cooperative marketing of cherries		277
Door County Fruit Growers Union		277
cherry pools		278
<b>Chicago</b>		
—Live Poultry Board		209
butter trade on Chicago Mercantile Exchange		218
—wholesale produce market		
<b>Chinese</b>		
marketing—eggs		200
Cigarette manufacture a large factory		
—process		612
Cincinnati an early hog packing center		171
Citrus fruits		267
<b>Classes</b>		
—and types of tobacco		164
—of bananas		298
—of carpets and rugs		466
—of cotton tendered on future contract	123, 124	
—of flaxseed		101
—of furniture		469
—of grain sorghums		101
—of hardware		480
—of hide producers		146
—of live stock		187
—of oats		97
—of poultry		207
—of raisins		292
—of wheat		72
<i>see also</i> Standardization		
<b>Classification</b>		
—of peaches		276
tariff—of wools		139
<b>Cleaning</b>		
local—of grain		66
Clearance sales		661
<b>Clearing houses</b>		
grain exchange clearing houses		79
<b>Citrus Fruits</b>		
citrus fruits		267
lemons, increased yields		267
California Fruit Growers Exchange		267
Fruit Growers Supply Company		268

<b>Citrus Fruits (<i>continued</i>)</b>		
association harvests citrus fruits for		
members	268	
district exchanges of citrus associations	268	
cooperative purchasing by citrus		
associations	268	
sales policy citrus exchange	269	
advertising citrus fruit	270	
"Sunkist" trade-mark for citrus fruit	270	
standardization of oranges and lemons	271	
consumer demand stimulated for citrus		
fruits	271	
extension of marketing season for citrus		
fruits	272	
grading and sizing oranges	272	
packing oranges	273	
cost of distribution of citrus fruits	273	
wholesale and retail margins for citrus		
fruits	273	
cold storage citrus fruits in consuming		
markets	274	
Cloth manufacturers sell direct to cutters	638	
<b>Clothing</b>		
style in clothing	432, 439, 440, 441	
style and direct marketing	432	
lack of standardization in clothing	433	
the chain store and clothing	433	
clothing jobbers	433	
clothing jobbers and hand to mouth		
buying	434	
retail dry-goods outlets	434	
department store buyers	435	
women's piece goods	435	
mail-order clothing houses	438	
finance function of textile selling house	440	
style in clothing	439, 440, 441	
Paris couturiers and style	443	
style "openings"	443	
brands and trade-marks for dry-goods	445	
linen damask manufacturers advertise	447	
misbranding of textiles	448	
standardization problem in dry-goods	448	
style and distribution costs	450	
quick turnover in some textiles	451	
cooperative buying of dry-goods	452	
chain department stores	452	
jobber and retail turnover	454	
chain dry-goods stores	455	
standardization of sizes for knit wear	456	
Federal standards suggested for		
underwear sizes	456	
integration in the dry-goods trade	457	
cooperative manufacture by jobbers of		
clothing	457	
chain dry-goods stores	458	
Cheney Brothers advertise silk	459	
textile manufacturers study style trends	460	
style departments of manufacturing		
houses	460	
<b>Coal</b>		
company sales department for coal	311	
sales agent for coal	311	
coal brokers	311	
sales agent in anthracite trade	312	
Federal Commission critical of duplica-		
tion in coal trade	312	
retail coal dealers	313	
direct sale of coal to retailers	313	
retail credit in coal trade	313	
coal retailer buys F.O.B. mine	313	
chain type of retail coal dealer in		
Northwest	314	
coal exchanges abroad	314	
coal brokers' commissions	314	
reconsignment abuse in coal trade	315	
export and bunkering coal trade methods	315	
Pocahontas and New River sources of		
export coal	315	
coal contracts flexible	316	
coal brokerage contracts for one year	317	
summer dullness in coal trade	317	
the anthracite market	317	
<b>Coarse grain</b>		
Canadian—pools	85	
<b>Coffee</b>		
geography of coffee production	547, 552	
geography of coffee consumption	547, 552	
commission men in the coffee		
industry	548, 551	
concentration of raw coffee	548	
grading of coffee	548, 553, 554	
storage of coffee	548	
exportation of coffee	548	
the broker in the coffee industry	548, 551	
Brazilian government exporter of		
coffee	548, 560	
the letter of credit in coffee financing	548	
green coffee non perishable	549	
coffee storage	549	
seasonal production of coffee	549	
grades of coffee	549, 554	
coffee prices	549, 553, 555	
geography of coffee warehouses	550	
transportation of green coffee	550	
Arbuckle Brothers coffee roasters	550	
McLaughlin and Company coffee roasters	550	
direct purchase of coffee	550	
sale of green coffee in transit	551, 554	
public coffee warehouses	551	
speculation in coffee market	551	
coffee roasters	551, 554	
branding coffee	551, 554, 558	
chain stores in the coffee trade	551, 556, 558	
mail-order houses in the coffee trade	551, 556	
wholesale grocer in coffee trade	551, 554	
importing coffee	552, 554	
central markets of coffee industry	552	
organized exchange in coffee market	552	
"spot" market in coffee	553	
"futures" market in coffee	553	
exchange contracts in coffee trade	553	
"black beans" in coffee grading	553	
trade-marks in the coffee industry	554	
jobber in the coffee trade	554	
packaging coffee	555	
Federal Pure Food Act and coffee		
blends	556	
retail trade in coffee	556, 559	
house-to-house selling of coffee	556	
special coffee and tea stores	556	
drug stores distributors of coffee	556	
labels in the coffee trade	556	
premiums used in retail coffee trade	557	
family of products in coffee trade	557, 558	
Jewel Tea Company	558	
valorization of coffee	559	
Sao Paulo Institute	560	
Brazilian tax on export coffee	561	
financing the coffee trade	561	
<b>Cold storage</b>		
—of apples	252	
—boxed apples	259	
—citrus fruits in consuming markets	274	
—dairy products	223	
—of eggs	192	
—of poultry	204	
Collecting crude petroleum	378	
Color preferences in onions for various		
markets	290	
<b>Combinations</b>		
—in baking industry	541	
—in the bread baking industry	544	
—in the tobacco industry	613	
Winchester Simmons consolidations	484	
<i>see also</i> Trusts and combinations		
<b>Commission</b>		
—broker in glass goods trade	499	
coal brokers' commissions	314	



Commission ( <i>continued</i> )			
cotton—merchants	115		
—merchants in canning trade	528, 530		
grain merchants	68		
live stock—firms	182		
—men in the coffee industry	548, 551		
—men sell lumber	353		
—on southern textiles	407		
—paid in the canning trade	530		
—paid truck drivers in baking industry	541		
Commission houses			
consignment of apples to—houses	249		
cooperative live stock—	183		
export—for glass	502		
produce—	230		
textile—	406		
Competition			
—between market areas not keen in			
iron trade	321		
—between species of lumber	342		
—in cement trade	365, 366		
—in the aluminum industry	628		
—in the bread industry	541		
—in the candy trade	504		
—in the flour milling industry	572		
—in the iron and steel market	320		
—in the soap industry	603		
prices and—in automobile tire trade	684		
quality—in the drug and			
pharmaceutical trades	497		
railroad—in lumber trade	342		
Concentrated value of wheat	52		
Concentration			
—in manufacture of farm machinery	688		
—of cotton	112		
—of manufacture of Turkish cigarettes	612		
—of raw coffee	548		
Condition of cotton in inspection	122		
Conditional sales of furniture	474		
Conditioning grain by country houses	66		
Conditioning silk	427		
"Consent decree" restricts packers in			
canned goods trade	525		
Consumer demand			
—for soap stable	603		
—stimulated for citrus fruits	271		
Consign			
growers—wool to terminal warehouses	128		
Consigned cotton	115		
Consigning potatoes	243		
Consignment			
—of apples to commission houses	249		
—of grain	68		
—of textiles	408		
sale range wool by—	132		
shipping potatoes on—	241		
Consignments			
export—of cotton	125		
Contracting sale of wool clip before			
shearing	129		
Contracts			
delivery of canned goods on "pro			
rata—"	532		
coal brokerage—for one year	317		
coal—flexible	316		
future delivery—, cement	373		
—for book paper	403		
—for future deliveries of glassware	500		
—for cement	367		
—for lumber	354		
—for steel	324		
—grades of grain	78		
specific job—for cement	369		
—of sale, raw rubber	391		
—for sale of grain by farmer	63		
—for sale of lumber	353		
(—for sale) selling potatoes in the			
ground	240		
exchange—between oil companies	388		
range sale of wool on contract	131		
<i>see also</i> Future trading			
Converters	412		
Converters' business seasonal	420		
Convenience			
hosiery as a—line	646		
Cooperation			
American Cotton Growers Exchange	120		
associative sales range wool	133		
growers' contracts raisin—	295		
—in tea production and marketing	565		
Northwest Hay Association	107		
pooling tobacco	160		
Roosevelt Hay Growers Association	108		
state cotton associations	120		
wool pools	135		
<i>see also</i> Associations			
Cooperative			
—advertising of rayon	430		
—cheese factories	226		
—company owns raisin packing plant	295		
—creameries	226		
—dairy organization	226		
—elevators	56		
—egg marketing	195		
—grain marketing western Canada	85		
—live stock commission houses	183		
organization of cotton—	119		
tobacco—sales agencies	159		
—wool pools	129		
financing—tobacco pools	160		
importance of—elevators	57		
—buying of dry goods	452		
—buying of hardware	485		
—manufacture by jobbers of clothing	457		
—purchasing by citrus associations	268		
Cooperative marketing			
American Cranberry Exchange	280		
association harvests citrus fruits for			
members	268		
Burley Tobacco Growers Association	161		
California Associated Raisin Company	294		
Dark Tobacco Association	162		
district exchanges of citrus association	268		
fruit "exchanges"	229		
Grain Marketing Company, The	84		
Indiana Farm Bureau Onion Growers			
Exchange	285		
live stock shipping associations	177		
local cranberry associations	280		
Minnesota plan for marketing eggs	196		
National Farmers' Elevator Grain			
Company	84		
—of boxed apples	255		
—of cherries	277		
—of cotton	119		
—of hay	107		
—of onions	284		
—of raisins	293		
—of tobacco	159		
recent—of grain	83		
Texas Farm Bureau Onion Growers'			
Exchange	285		
Tri-State Tobacco Growers' Association	161		
sales policy citrus exchange	269		
United States Grain Growers, Inc.	81		
Wisconsin Cranberry Company	280		
—wool pools	135		
<i>see also</i> Associations			
Copper			
speculation in copper	332		
London metal exchange	332		
copper pool	332		
geography of copper market	334		
copper trade organization	334		
metal brokers for copper	334		
industrial purchasers of copper	335		
integration in copper trade	335		
copper wholesalers	335		



Copper ( <i>continued</i> )			
transportation of copper	336		
transportation costs—copper	336		
New York Metal Exchange	336		
warehousing copper	336, 337		
storage of copper	336, 337		
inspection of copper	337		
Bureau of Geological Survey	337		
Copper Export Association	338		
Webb Export Act	338		
international copper market	338		
Corn			
corn consumed locally	92		
method of sale of corn	93		
corn movement largest in the winter	94		
exports of corn	94		
Argentina exports corn to Europe	95		
disorganization of corn prices	95		
geography of corn prices	96		
corn prices lowest in December	96		
see also Grain			
Country			
—elevators	55		
funds for—elevators	59		
sales by—elevators statistics	58		
conditioning grain by—houses	66		
other—grain buyers	64		
—car-lot egg packer	193		
—store keeper handles eggs	193		
Cost of distribution of citrus fruits	273		
Costs			
meat marketing—	589		
—of salmon marketing	536		
selling—industrial equipment	708		
transportation—copper	336		
transportation—grain	81		
Cotton			
local sale of cotton	109		
the cotton bale	109		
local store keepers buy cotton	109		
"interior cotton buyers"	110		
direct or road buyers of cotton	111		
concentration of cotton	112		
financing cotton producers	113		
factorage financing for cotton	113		
security for cotton loans	114		
consigned cotton	115		
cotton factors	115		
cotton commission merchants	115		
inspection of cotton	116		
to-arrive cotton	117		
spot cotton, methods of selling	117		
cotton sold on sample	117		
mill buying of cotton	118		
cotton trade loans	118		
cooperative marketing of cotton	119		
organization of cotton coops.	119		
American Cotton Growers Exchange	120		
state cotton associations	120		
warehousing cotton at New Orleans	120		
cotton warehouses under Federal			
Warehouse Act	121		
inspection of—at New Orleans	121		
condition of cotton in inspection	122		
sampling cotton	122		
classes of cotton tendered on future			
contract	123, 124		
cotton futures market	123		
foreign sales organization and methods,			
cotton	124		
export consignments of cotton	125		
export shipments of cotton	125		
cotton exports to Liverpool	126		
buying cotton for export	126		
delivery of cotton for export	127		
agency buying of export cotton	127		
Couturiers			
Paris—and style	443		
Cranberries			
American Cranberry Exchange	280		
Wisconsin Cranberry sales company	280		
local cranberry associations	280		
advertising cranberries	281		
"Eatmore" brand of cranberries	281		
Creameries			
three types of—	217		
Credit			
farm implements sold on credit	687		
—in direct distribution of soap	607		
—policies in the tobacco market	616		
retail—in coal trade	313		
Credits			
furniture—	474		
—for newsprint paper	400		
see also Financing			
Crude			
distribution—petroleum	386		
Cuban			
government regulations of Cuban			
sugar crop	602		
Cycles in hog prices	173		
		D	
Dairy Products			
dairy products perishable	212		
transportation dairy products	213		
highway transportation dairy products	214		
distribution of milk	216		
distribution creamery butter	216		
three types of creameries	217		
receivers of dairy products	217		
butter prices	218		
call board prices for butter	218		
butter trade on Chicago Mercantile			
Exchange	218		
distribution of cheese	218		
cheese dealers	219		
types of cheese	219		
pasteurized and package cheese	220		
condensed and evaporated milk	220		
powdered milk	221		
dried skim milk	221		
cold storage dairy products	223		
financing storage of butter and cheese	223		
grading dairy products	223		
butter scores and grades	224		
Federal butter inspection service	224		
price of dairy products	224		
milk price disputes	225		
"surplus" plan milk price	225		
basis for butter prices	225		
basis for cheese prices	226		
cooperative dairy organizations	226		
cooperative creameries	226		
cooperative cheese factories	226		
tariff on dairy products	227		
foreign trade in dairy products	227		
cheese imports	227		
imports of butter from Denmark	227		
exports of condensed and evaporated			
milk	227		
Dealers in boxed apples	256		
Delivered prices for cement	373		
Delivering of clothing	641		
Delivery			
—costs in bread distribution	542		
—of cotton for export	127		
Florists' Telegraph—Association	513		
—of shoes	660		
—of textiles	421		
Demonstrations and lectures on Oriental			
rugs	468		
Demonstrators in the aluminum goods			
field	635		
Department store buyers	435		

Department stores		quality competition in the drug and	
chain—		pharmaceutical trades	497
—important in toilet goods trade	452	drug stores carry many convenience	
—outlets for millinery	488	items	498
—important in shoe trade	463		
—sell soap	654		
—purchase textiles direct and indirect	604		
Direct	417	E	
selling automobile tires—	680	Eastern wools	
—selling bakery goods	539	characteristics of—	130
—shipment to consumer from factory	630	Eggs	
style and—marketing	432	geography egg production	191
—sale of coal to retailers	313	transportation of eggs	102
—purchase of coffee	550	cold storage of eggs	102
—or road buyers of cotton	111	country storekeeper handles eggs	193
—grain purchases	69	country car-lot egg packer	193
pharmaceuticals sold—to physicians	496	“case count” for eggs	194
furniture sold—in nearby consuming		cooperative egg marketing	195
centers	472	Minnesota plan for marketing eggs	196
glass containers sold—to manufacturers	499	exchange trading in eggs	197
stove manufacturers sell—	484	shipping eggs by express	197
—sales of hosiery	644	shipping eggs by freight	197
—sales of industrial equipment	699	egg packages	198
—sales of lumber	349	commercial egg grades	198
—distribution in the packing		mercantile exchanges	199
industry	580, 582, 583, 586	candling eggs	199
—sale of clothing to retailers	639	marketing Chinese eggs	200
news-print paper sold—to daily		Elevators	
publisher	399	geography of elevator types	57
—marketing of poultry	205	cooperative—	56
—to retailer, sales of radio	694	country—	55
—sale by Raisin Growers Association	294	distribution of grain cars to local—	
—sale of shoes	652	see Terminal elevators	
—buying of raw silk	426	flaxseed marketed through local—	101
—sales of soap to retailer	605, 606, 607	hedging by country—	58
—marketing of sugar	598, 599	importance of cooperative—	57
selling staple textiles—	405	line—	55, 56
knit goods sold—	414	mill—	58
—distribution to retailers not feasible		physical difference in—	59
in tobacco trade	615	price information for local—	67
Direct-to-consumer distribution	635	public—	70
Discounts		“regular”—	71
—on glassware	581	sales by county—statistics	58
cash—in shoe trade	660	Estimating	
Display of bakery goods by retailer	541	live stock—service	188
Distribution		Ethics of pharmaceutical trade	494
—of ingot aluminum	628	European	
—of semi-finished aluminum	628	North—markets for apples	263, 264
—of candy in Philadelphia	507	Evaporated milk	
—of cement	364	exports of condensed and—	227
—of refined petroleum products	381	Exchange	
channels of—for rugs and carpets	465	butter trade on Chicago Mercantile—	218
—of rayon	428	—trading in eggs	197
—of textiles	405	London Metal—	332
Distributors		New York Metal—	336
—in industrial equipment trade	700	New York Wool—	142
selecting foreign—	726	organized—in coffee market	552
Door County Fruit Growers Union	277	silk—	424
Dried skim milk	221	the New York Sugar—	601
Drug stores		Exchanges	
—distributors of coffee	556	coal—abroad	314
—distribute toilet soap	605	mercantile—	199
Drugs		Chicago Live Poultry Board	209
jobbers important in drug trade	487	Exclusive	
“patent” medicines	487	—retail outlets for shoes	658
Rexall chain of drug stores	487	—sales territory in industrial equipment	705
United Drug Company	487	Exhibitions	
standard drugs standardized by Squibb	487	furniture—	472
Squibb brand a guaranty of purity	487	Export	
price-cutting manufacturers of drugs	488	agency buying of—cotton	127
department stores important in toilet		Brazilian tax on—coffee	561
goods trade	488	buying cotton for—	126
independent retailer in drug trade	489	delivery of cotton for—	127
stocks of drug wholesalers	491	—and bunkering coal trade methods	315
patent medicine distribution	492	—consignments of cotton	125
ethics of pharmaceutical trade	494	—duty on tea	505
pharmaceuticals	494	—markets for automobiles	678
sold direct to physicians	496	season for apples	253
		—shipments of cotton	125
		—trade in raisins	296

<b>Export (continued)</b>			<b>Filling stations</b>	
Federal grades for grain used for—	87		gasoline—	383
Pocahontas and New River sources of—			Finance function of textile selling house	440
coal	315		<b>Financing</b>	
terms of payment for—machinery	727		factorage—for cotton	113
varieties of box apples for—trade	262		see also Credits	
Webb—Act	338		—cooperative tobacco pools	160
Exportation of coffee	548		—cotton producers	113
Exporter			—retail furniture sales	474
Brazilian Government—of coffee	548, 560		—southern textiles	407
Exporting			—storage of butter and cheese	223
apple—practices	253		—the apple market	266
—glass	502		—the canning industry	527, 529, 530, 532
—shoes	655		—the coffee trade	561
—wheat from Pacific Northwest	86		—woolen mills	137
Exports			cotton trade loans	118
apple—to United Kingdom	253		funds for country elevators	59
Argentina—corn to Europe	95		security for cotton loans	114
British regulation of raw rubber—	393		the letter of credit in coffee	548
cotton—to Liverpool	126		<b>Flaxseed</b>	
—of condensed and evaporated milk	227		flaxseed marketed through local elevators	101
—of corn	94		classes of flaxseed	102
—of wheat from India	89		terminal markets for flaxseed	102
machinery—	726		flaxseed crushing centers	102
foreign demand for American cigarettes	621		board of trade set grades for flaxseed	102
selecting foreign distributors	726		<b>Fleece</b>	
Expositions			marketing—wools	134
automobile shows	672		Florida potatoes	240
National Radio Show	694		<b>Flour</b>	
Express			geography of flour distribution	572
shipping eggs by—	197		branch houses in the flour market	572
—shipments of poultry	210		middlemen in the flour trade	572
			mill agents in flour distribution	572
			brokers in flour distribution	572
			jobbers in flour distribution	572
			sale terms in flour market	572
			brands in the flour industry	572
			competition in the flour milling industry	572
			price cutting in flour sales	573
			the Pure Food Law and flour distribution	573
			trade associations in flour marketing	573
			price making in the flour industry	573
			the jobber and flour distribution	573
			wholesale grocer distributors of flour	573
			the jobber financing small buyers in	573
			flour trade	574
			flour jobber a speculator	574
			standardization of flour containers needed	575
			laws regulating labeling of flour containers	575
			commercial grades of wheat flour	576
			grading flour	576, 577
			world conditions in the flour market	577
			<b>Flowers</b>	
			cooperative advertising of flowers	509
			"Say it with flowers"	511
			advertising off season sales of flowers	511
			Florists' Telegraph Delivery Association	513
			telegraph in the sale of flowers	514
			<b>Food Control Act fixed price of grain</b>	82
			<b>Foreign</b>	
			—apple trade	253
			—live-stock markets	168
			—sales organization and methods, cotton	124
			—tobacco trade	613
			marketing—wools	138
			wheat marketing—countries	87
			<b>Foreign trade</b>	
			—in dairy products	227
			foreign wheat production	52
			Northwest Europe import of wheat	52
			world conditions in the flour market	577
			see also Imports and Exports	
			<b>Foreign marketing</b>	
			marketing Chinese eggs	200
			<b>Freight</b>	
			—charges a significant item in sugar	
			distribution	597
			—rates on aluminum	632
			—shipments poultry	210
			minimum live-stock—rates	180



Freight ( <i>continued</i> )			
shipping eggs by—	197	—of coffee production	547, 552
Fruit		—of consumer demand for meat	578, 579
local sale of fruit	228	—of copper market	334
fruit distributors	229	—of corn prices	96
fruit "exchanges"	229	—of egg production	191
car-lot wholesalers of fruits and		—of flour distribution	572
vegetables	229	—of iron and steel production	319
fruit jobbers	230	—of lumber trade	340
produce commission houses	230	—of pea canning	533
central market fruit brokers	231	—of poultry production	203
fruit auction companies	231	—of production of furniture	469
retailing of fruit	233	—of raisin production	292
South Water Market in Chicago moved	236	—of rayon	429
"car peddler" of fruit	236	—of salmon production	534
Fruit Despatch Company		—of shoe industry	651
banana selling organization	306	—of silk production	426
Fruit Growers Supply Company	268	—of snuff manufacture	612
Fuel oil		—of sugar production	594
distribution of—	385, 389	—of tea consumption	563, 564, 566
Functions of eastern wool merchants	142	—of tea production	593
Furniture		—of the manufacture of smoking tobacco	612
geography of production of furniture	469	Geography of consumption	
classes of furniture	469	local preferences for colors in textiles	410
furniture trade associations	470	Geography of production	
individuality in furniture	471	hay producing areas	104
furniture sold direct in nearby		paper producing countries	404
consuming centers	472	raw materials a factor in location of	
furniture jobbers important in the West	472	canneries	526, 533
central furniture markets	472	source of market lambs	175
furniture exhibitions	472	wheat—	51
furniture salesmen sell from catalogs	473	Georgia peaches	276
catalogs important in furniture trade	473	Glass	
furniture credits	474	glass containers sold direct to	
chatel mortgages on furniture	474	manufacturers	499
conditional sales of furniture	474	selling agents and brokers for window glass	499
financing retail furniture sales	474	commission broker in glass goods trade	499
installment sales of furniture	475	jobber important in glass goods	500
furniture trade associations	475, 476, 477	seasonal factors in glass market	500
retail furniture associations	476	contracts for future deliveries of glassware	500
truth in furniture	477	discounts on glassware	501
misbranding of furniture	477	job lots of glassware	501
built-to-order furniture	478	advertising glass	501
Furs, Raw		trade risks in glass market	502
terminal markets	153	exporting glass	502
Future contracts		export commission houses for glass	502
cancellation of—in grain	76	export agents for glass	502
canner contracts	531	Government	
"pro rata contracts" in canned goods		Brazilian—exporter of coffee	548, 560
industry	532	—regularization of Cuban sugar crop	602
purchase contracts for canned salmon	537, 538	—specifications for tires	686
Future prices in the canned salmon trade	537	Government control	
Future selling in the canned goods trade	531	—see also Municipal regulation; State regulation; Federal regulation; Tariffs	
Future trading		British regulation of raw rubber exports	393
grain margins—	79	Federal Pure Food Act and coffee blends	556
see also Contracts for future sale		Federal standards suggested for	
—in grain	75	underwear sizes	456
—in provisions	585	municipal regulation of bread trade	543
—in sugar	601	packers and stockyards administration	188
classes of cotton tendered on future		United States Grain Corporation	82
contract	123, 124	valorization of coffee	559
exchange contracts in coffee trade	553	Graded	
future prices, canning trade	528	tobacco—by packer	611
Futures		Grades	
cotton—market	123	—see also Standardization	
—in canned goods marketing	531, 532	boards of trade set—for flax seed	102
—marketing in coffee	553	butter scores and—	224
grain—quotations	74	commercial egg—	198
		commercial—of wheat flour	576
		"deliverable—" of grain	79
		Federal—for grain used for export	87
		Federal—for rice	99
		Federal hay—	107
		—and grading of oats	97
		—and sizes of apples	264
		—and standards for peaches	275
		—of barley not well established	98
		—of book paper	400
		—of coffee	549, 554
		—of grain sorghums	101
Gasoline			
distribution of—	381, 382		
—filling stations	383		
Geography			
—of aluminum products	627		
—of boxed apple production	254, 255		
—of canning industry	524, 526		
—of cement production	364		
—of coffee consumption	547, 552		



Grades (*continued*)

—of lumber	355
—of raw silk	424
—of salmon	534
—of tea	569
—of wheat	72
—of wool	143
Live stock—	
market—of poultry	206
mills use different—of wheat	54
United States—for potatoes	246

Grading

—and sizing oranges	272
—of aluminum products	637
—of boxed apples	264
—of coffee	548, 553, 554
—of dairy products	223
—of flour	576, 577
—of hides and skins	152
—of iron and steel	327
—of sheep and lambs	175
—of silk	428
—of sugar products	599
candling eggs	199
sizing machines for apples	265
"blood" terms used in wool—	144
"black beans" coffee—	553
local—of grain	65

Grain

<i>see also</i> Barley; Corn; Oats; Wheat	
wheat, geography of production	51
foreign wheat production	52
Northwest Europe import of wheat	52
concentrated value of wheat	52
wheat a stable commodity	53
wheat price stable	53
seasonal wheat harvest	53
mills use different grades of wheat	54
farmer sells wheat to local elevator	54
line elevators	55, 56
country elevators	55
cooperative elevators	56
patronage dividends—grain	56
importance of cooperative elevators	57
opposition to line elevators	57
geography of elevator types	57
mill elevators	58
hedging by country elevators	58
sales by country elevators—statistics	58
funds for country elevators	59
physical difference in elevators	59
bulk handling of grain	60
bulk and sack handling of grain	60
sacked grain in Northwest	60
early grain marketing, Chicago territory	61
early grain marketing, Northwest	61, 63
early grain marketing, Southwest	62
methods of sale of grain by farmer	63
contracts for sale of grain by farmer	63
other country grain buyers	64
track buyers of grain	64
scoop shoveler of grain	64
local grading of grain	65
country weighing of grain	65
sale and shipment of grain	65
conditioning grain by country houses	66
local cleaning of grain	66
distribution of grain cars to local elevators	66
plugged grain cars	66
shipping documents—grain	66
price information for local elevators	67
consignment of grain	68
grain commission merchants	68
grain solicitors	69
direct grain purchases	69
grain "on track"	69
grain "to arrive"	69
ownership terminal elevators	70
leasing terminal elevators	70

public elevators	70
"regular" elevators	71
merchandising and shipping from	
terminal elevators	71
mixing grain in terminal elevators	71
classes of wheat	72
standardization of wheat	72
grades of wheat	72
inspection of grain	72
inspection of grain before arrival	73
inspection of track grain	73
sampling of grain by inspectors	74
weighing grain by inspectors	74
grain futures quotations	74
collection of grain price quotations	75
future trading in grain	75
cancellation of future contracts in grain	76
the grain pits	77
traders in grain pits	77
contract grades of grain	78
options in grain	78
"privileges" in grain market	78
bids and offers in grain market	78
"puts and calls" in grain market	78
hedging in grain	79
"deliverable grades" of grain	79
grain margins—future trading	79
grain exchange clearing houses	79
bucket shops—grain	80
middlemen's profits and margins in grain	80
transportation costs—grain	81
price control—wheat market	82
food control act fixed price of grain	82
United States Grain Corporation	82
recent cooperative marketing of grain	83
United States Grain Growers, Inc.	83
Grain Marketing Company, The	84
National Farmers' Elevator Grain Company	84
regional associations of grain producers	84
cooperative grain marketing—Western	
Canada	85
Canadian coarse grain pools	85
exporting wheat from Pacific Northwest	86
Federal grades for grain used for export	87
United States Federal grades for grain	
used for export	87
wheat marketing—foreign countries	87
marketing Russian wheat	87
grain sacked in Russia	88
exports of wheat from India	89
marketing Argentine wheat	90
grain marketing	
<i>see</i> Barley; Corn; Oats; Rice; Rye; Wheat	

Grain sorghums	
classes of—	101
grades of—	101
terminal markets for—	100
Great Britain imports much rice	100
Great Lakes apples	250
Grocery stores, distributors of bread	542
Groceries	
national, regional and local grocery	
jobbers	515
packaging of grocery items	515
wholesale grocer	516
"grocerteria" in the west	518
grocery chains	519
Great Atlantic and Pacific Tea Company	519
chain stores and private brands	520
grocery buying associations	521
quantity buying by chain stores	521
turnover of grocery stores	523
Growers' contracts of raisin cooperatives	295

H

Hand-to-mouth	
clothing jobbers and—buying	434

Hand-to-mouth ( <i>continued</i> )		I	
—buying of textiles	417	Import duty on sugar	595
iron and steel a—industry	322	Importation of ingot aluminum	628, 631
style fluctuations and—buying	418	Importers	
Hardware		oriental rug—	468
national hardware jobbers	479	Importing	
local hardware jobbers	479	—coffee	552, 554
hardware catalogs	480	—hide brokers	150
classes of hardware	480	—hides and skins	150
hardware shipped long distances	482	—Turkish tobacco	612
seasonal demand for hardware items	482	Imports	
mail order trade in hardware	484	cheese—	227
stove manufacturers sell direct	484	Great Britain—much rice	100
Winchester Simmons consolidations	484	—of book paper	403
chain hardware stores	485	—of butter from Denmark	227
cooperative buying of hardware	485	—of cement	376
Hay		—of hides by tanners	150
hay producing areas	104	—of hosiery	645
hay sales agencies terminal	105	—of onions	290
country shippers' sales of hay	105	Independent Oil Producers' Agency	388
selling hay on terminal markets	106	India	
Federal hay grades	107	exports of wheat from—	89
cooperative marketing of hay	107	Indian hides	149
Northwest Hay Association	107	Indiana Farm Bureau Onion Growers'	
Roosevelt Hay Growers' Association	108	Exchange	285
Hedges in grain	79	Industrial buyers of copper	335
Hedging		Industrial buying of lumber	354
—by country elevators	58	Industrial Equipment	
Hides		direct sales of industrial equipment	699
classes of hide producers	146	distributors in industrial equipment trade	700
great packing houses as producers of		mill supply house in industrial equipment	700
hides	146	wholesale hardware house and industrial	
London auctions, imported hides and		equipment	700
skins	147	manufacturers' agent in sale of	
sale of hides by medium-sized		industrial equipment	700
slaughterers	148	jobber misunderstandings in industrial	
farm hides	148	equipment trade	703
raw hides and skins at European fairs	148	full stocks and the industrial	
Indian hides	149	equipment jobber	704
hides sold by nomadic tribes	150	associated equipment distributors prepare	
importing hides and skins	150	uniform jobber's contract	705
importing hide brakers	150	exclusive sales territory in industrial	
imports of hides by tanners	150	equipment	705
the broker in the hide and skin trade	151	standardization and stocks in industrial	
grading hides and skins	152	equipment	706
Highway transportation, dairy products	214	direct-by-mail advertising of	
History of		industrial equipment	706
—beginning of central live stock markets	166	weakness of manufacturers' agent in	
early grain marketing Chicago territory	61	industrial equipment trade	707
early grain marketing Northwest	61, 63	selling costs of industrial equipment	708
early grain marketing Southwest	62	the technical salesman in industrial	
early live stock marketing	165	equipment trade	708
passing of the live stock drover	166	purchasing agents for industrial	
westward movement of beef cattle		equipment	709
industry	169	salesman's kit for selling industrial	
Hog marketing	171	equipment	710
Hogs		service men in industrial equipment trade	711
see Live Stock		samples in industrial equipment and	
Holiday demands for candy	508	supply trade	712
Hosiery		trade-ins in replacements of	
types of hosiery	643	industrial equipment	713
hosiery jobbers	643	advertising industrial equipment	714
direct sales of hosiery	644	sales promotion of industrial	
imports of hosiery	645	equipment	713-714
branded hosiery	646	new uses for industrial products	715
jobbers' brands on hosiery	646	standardization of machine parts	716
hosiery as a convenience line	646	advertising industrial equipment	717, 718
hosiery as a shopping line	646	advertising length of service in	
abuses in hosiery trade	647	industrial equipment	719
cancellation of orders in hosiery trade	648	use of scientific tests in selling	
style factors in hosiery	649	equipment	720
Hotel supply houses	582	research departments prepare copy for	
House-to-house		advertising industrial equipment	720
—selling of baking goods	540	pictures for selling industrial	
—selling of coffee	556	equipment	720, 721, 722
Houses		price appeal not commonly stressed in	
ready-cut—sold by mail	358	industrial equipment	721
		inquiries important in industrial selling	722
		popularizing industrial copy	723

Industrial Equipment ( <i>continued</i> )			
collateral advertising of equipment			
parts	724, 725		
machinery exports	726		
selecting foreign distributors	726		
terms of payment for export machinery	727		
Industrial purchaser of lumber	345		
Inspection			
condition of cotton in—	122		
Federal butter—service	224		
Federal—of live stock	187		
—laws, petroleum products	386		
—of bananas at seaboard	303		
—of boxed apples	265		
—of copper	337		
—of cotton	116		
—of cotton at New Orleans	121		
—of grain	72		
—of grain before arrival	73		
—of iron and steel	327		
—of potatoes	243		
shipping point—of potatoes	246		
—tracks grain	73		
Inspector			
sampling of grain by—	74		
weighing grain by—	74		
Installment			
—sales of automobiles	672		
—sales of furniture	475		
Integration			
—in copper trade	335		
—in the dry goods trade	457		
"Interior cotton buyers"	110		
International			
—copper market	338		
sales organization International			
Harvester Company	689		
—trade in rice	10		
Inquiries important in industrial selling	722		
Iron and Steel			
geography of iron and steel production	319		
specialization in steel production	320		
Ryerson Company steel jobbers, keep			
assortments and cut lengths	320		
competition in iron and steel market	320		
United States Steel Corporation	320		
"Gary dinners"	320, 321		
competition between market areas not			
keen in iron trade	321		
iron and steel a hand-to-mouth industry	322		
world-wide market for iron and steel	322		
middleman in foundry iron trade	323		
speculators in pig iron market	323		
Jewel Tea Company	J	558	
Jobber			
flour—a speculator	574		
full stocks and the industrial equipment	704		
—and retail turnover	454		
—distribution of aluminum products	633		
—finances the retail merchants tobacco			
products	616		
—important in glass goods	500		
—in the coffee trade	554		
—misunderstandings in industrial			
equipment trade	703		
—not so important in automobile tire			
trade	681		
—protection against drop in prices	618		
—shifts textile risks	422		
millinery—loses ground	462		
style and the millinery	462		
the banana—	304		
the—and flour distribution	573		
the—financing small buyers in flour			
trade	689		
the—in the meat trade	580, 581, 582		
the—in the tobacco trade	615		
the—squeezed out of the farm			
implement trade	689		
the sub—in the tobacco trade	616		
Jobbers			
Associated Equipment Distributors			
prepare uniform—contract	705		
book paper—	401		
candy—	503		
clothing—	433		
cooperative manufacture by—of clothing	457		
combination of products handled by			
tobacco—	615		
drug and grocery—handle candy	503		
fruit—	230		
furniture—important in the West	472		
hosiery—	643		
—brands on hosiery	402		
—exclusive agency for papers	402		
—flour distribution	572		
—handle manufactured tobacco products	612		
—heavy buyer of boxed apples at			
auction	262		
—important in drug trade	487		
—in shoe trade	652		
local hardware—	479		
most onion receivers are—	289		
national hardware—	479		
national, regional, and local grocery—	515		
newsprint paper—	399, 400		
radio and electrical—	693		
radio—	695		
Ryerson Company steel—keep			
assortments and cut lengths	320		
shoe—	654		
United Drug Company	487		
wholesale grocery—distributors of sugar	599		
wholesale—"bankers" of the sugar			
supply	600		
Jobbers' labels in salmon trade	536		
Jobbing			
factory-owned—outlets for shoes	654		
—not an important function of			
merchandise broker	530, 531		
Job lots of glassware	501		
Kerosene	K		
distribution of—	381, 384		
Knitwear			
standardization of sizes for—	456		
Labels	L		
see also Brands			
brokers'—in salmon industry	536		
jobbers'—in salmon trade	536		
—in bread trade	544		
—in coffee trade	556		
—in salmon industry	535		
packers'—in salmon industry	536		
Labeling			
laws regulating—of flour containers	575		
Lambs			
see Live Stock			
Large scale			
—manufacture of farm machinery	681		
—production in shoes	651		
Leader			
soap a—	603		
Legal aspects			
—of baking industry	543		
—of tobacco combination	614		
Lemons, increased yields	267		
Libby, McNeill & Libby and the			
canning industry	526		
Line			
—elevators	55, 56		
opposition to—elevators	57		







Meat ( <i>continued</i> )					
branch houses in the packing industry	580, 582		traveling salesmen disappearing from millinery trade	463	
car routes in the meat trade	580, 582, 583		open-floor stocks of millinery	463	
meat peddlers	581		department stores outlets for millinery	463	
hotel supply houses	582		advertising millinery	464	
branch house manufacturing establishments	582		millinery not standardized	464	
icing necessary for meat	584		millinery types not branded	464	
future trading in provisions	585, 586		millinerteria a retail outlet	464	
pricing retail meat cuts	586, 588		personal salesmanship important in millinery	464	
retail meat shops	587		Mills use different grades of wheat	54	
turnover of retail meat dealers	587		Milwaukee leading barley market	98	
chain stores and the meat trade	587		Minnesota plan for marketing eggs	196	
meat distributed through credit and delivery or service stores	588		Missionary salesmen		
meat distributed through cash and carry stores	588		packers' representatives in the canning industry	526	
meat distributed through public markets	588		Mixing grain in terminal elevators	71	
meat marketing costs	589		Monopoly control in the aluminum industry	628	
price differentials a factor in meat production	589		Multiple styles of shoes	652	
by-products influence price	590				
produce marketed through same channels as meat products	590		N		
"Consent Decree" in reference to packer distribution	591		National advertising		
by-products introduce market structure variations	591		retailer stocks controlled by—	616, 617	
brokers in the marketing of meat packing by-products	591		National Farmers' Elevator Grain Co.	84	
Medicines			National packers	578	
see Drug trade			New Orleans		
Men's Clothing			—the largest banana port	307	
style risk in men's clothing	638		warehousing cotton at—	120	
cloth manufacturers sell direct to cutters	638		New uses for industrial products	715	
shifting the risk in trimmings	639		New York		
direct sale of clothing to retailers	639		—chief market for cotton goods	414	
trade-marked lines in men's clothing	639		—Metal Exchange	336	
clothing sold by mail	639		western—apples	250	
clothing sold by sample	640		—wool exchange	142	
cancellation of orders	640		News		
delivery of clothing	640		newsprint paper	399	
tailor trade in clothing	640		trade information on steel	328	
wholesalers of woolsens and tailor's trimmings	641		Northern late potatoes	240	
tailor's trimming trade	641		Northwest		
ready-to-wear purchases	641		—Europe import of wheat	52	
advertising men's clothing	642		—Hay Association	107	
merchant tailors in men's clothing	642				
Merchandising and shipping from terminal elevators	71		O		
Merchant tailors in men's clothing	642		Oats		
Metals			—a less important market grain	97	
see Copper; Iron; Steel			classes of—	97	
Methods of sale			grades of—	97	
—of grain by farmer	63		see also Grain		
—of wool on the range	131		Offers		
Middleman in foundry iron trade	323		bids and offers in the grain market	78	
Middlemen			Onions		
—in flour trade	572		the early crop of onions	282	
—in lumber trade	351		local purchase of onions	282	
Middlemen's profits and margins in grain	80		Louisiana onion crop	283	
Milk			the late onion crop	283	
distribution of—	216		cooperative marketing of onions	284	
condensed and evaporated—	220		Texas Farm Bureau Onion Growers' Exchange	285	
powdered—	221		Indiana Farm Bureau Onion Growers' Exchange	285	
—price disputes	225		transportation of onions	286, 287	
"surplus" plan—prices	225		seasonal movement of onions	287	
see also Dairy products			Bermuda onions peak shipment in summer	287	
Mill buying of cotton	118		onion shipments from Galveston by water	287	
Mill elevators	58		wholesale onion markets	288	
Mill supply house in industrial equipment	700		car-lot receiver of onions	288	
Millinerteria a retail outlet	464		most onion receivers are jobbers	289	
Millinery			color preferences in onions for various markets	290	
millinery and national style magazines	462		imports of onions	290	
style and the millinery jobber	462		On track		
millinery jobber loses ground	462		grain—	69	
			Open-market paper purchases	401, 402	
			Options in grain	78	
			Order buyers and traders in live stock	184	
			Organization of cotton coops	110	

Oriental rugs	467	distribution of kerosene	381, 384
Over-the-counter selling of baking goods	540	Standard Oil Company	382
		Standard Oil Company dissolved	382
		gasoline filling stations	383
		company-owned filling stations	389
		distribution of fuel oil	385, 389
		distribution of lubricating oils	385
		inspection laws petroleum products	386
		analysis gasoline market	386
		distribution crude petroleum	386
		independent oil producers' agency	388
		exchange contracts between oil companies	388
		pipe-line transportation in Wyoming	389
		Pharmaceuticals	494
		Pictures for selling industrial equipment	720, 721, 722
		Pipe line	
		—transportation of petroleum	377
		—transportation in Wyoming	389
		Physical characteristics of soap	609
		Pits	
		the grain—	77
		traders in the grain—	77
		"Pittsburgh-plus" price for steel	329
		Plugged grain cars	66
		Pools	
		copper pool	332
		cherry—	278
		financing cooperative tobacco—	160
		cooperative wool—	129
		wool—	135
		"Portland" cement not a brand	364
		Portland Cement Association	368, 375
		Ports	
		banana ports	302
		Potatoes	
		southern early or "new" potatoes	239
		Florida potatoes	240
		northern late potatoes	240
		selling potatoes in the ground	240
		local sales of potatoes	240
		cash traveling potato buyers	241
		local storage of potatoes	241
		shipping potatoes on consignment	241
		selling potatoes by wire	241
		transportation of potatoes	242
		consigning potatoes	243
		weighing potatoes	244
		prices of potatoes	244
		standardization of potatoes	245
		inspection of potatoes	245
		shipping point inspection of potatoes	246
		United States grades for potatoes	246
		farm storage of potatoes	246
		Poultry	
		geography of poultry production	203
		transportation of poultry	203
		seasonal production of poultry	204
		cold storage of poultry	204
		direct marketing of poultry	205
		terminal poultry dealers	205
		market grades of poultry	200
		classes of poultry	207
		live poultry	208
		Chicago Live Poultry Board	209
		express shipments poultry	210
		freight shipments poultry	210
		shipping dressed poultry	210
		Powdered milk	221
		Premiums used in retail coffee trade	537
		Price	
		"direct quotation" method	629
		—maintenance and trade in values in automobile market	671
		—making mechanism in the canning trade	528
		making a—in the canning trade	531
		—differential in future and spot prices	532

Price (*continued*)

—making in the salmon industry	537
by-products influence—	590
hog—fluctuations	173
milk—disputes	225
Stevenson plan rubber—regulation	393
—of iron and steel	329
“Pittsburgh-plus”—of steel	329
—in the sugar market	598
—cutting war in the tobacco trade	623
—“fixing” for tobacco products	625
tariff and the—of wool	145
wheat—stable	53
—making in the flour industry	573
food control act fixed—of grain	82
Price control wheat market	82
Price cutting	
—in radio sales	692
—manufacturers of drugs	488
—in flour sales	573
Price declines	
wholesale or jobber protected against	
price declines in sugar market	598
Price differentials a factor in meat	
distribution	589
Price fixing in the aluminum trade	633
Price information for local elevators	67
Price lists	
paper—	402
Price policies in the tobacco trade	618
Price quotations	
collection of grain—	75
Prices	
basis for butter—	225
basis for cheese—	226
butter—	218
call board—for butter	218
cement—	373
cement—F.O.B. delivery point	366
corn—lowest in December	96
coffee—	549, 553, 555
cycles in hog—	173
disorganization of corn—	95
effects wool—on prices of sheep and	
lambs	175
geography of corn—	96
jobber protection against drop in	
tobacco products	618
“opening—” in the salmon industry	537
—and competition in automobile trade	684
—of dairy products	224
—of potatoes	244
—of raw rubber	392
—of sheep and lambs	175
styles and shoe—	652
“surplus” plan milk—	225
valorization of coffee	559
Pricing retail meat cuts	585, 586
“Privileges” in grain market	78
Processing	
conditioning silk	427
refining petroleum	380
Produce marketed through same channels	
as meat products	590
Profits	
middlemen's—and margins in grain	80
Public elevators	70
Public market	
—for wools in United States lacking	130
meat distributed through—s	588
Purchases	
wool mill—	137
Purchasing agents for industrial equipment	709
Pure Food Act	
Federal—and coffee blends	556
the—and flour distribution	573
“Puts and calls” in grain market	78

Q

Quality competition in the drug and	
pharmaceutical trades	497
Quotations	
grain futures—	74

R

Radio	
radio trade associations	692
price cutting in radio sales	692
standardization in radio equipment	693
manufacturer's representation for	
selling radio	693
radio and electrical jobbers	693
direct to retailer sales of radio	694
National Radio Show	694
advertising radio	694
radio jobbers	695
radio chain stores	697
seasonal element in radio sales	698
Railroads	
—encourage lumber industry	341
see also Transportation	
Raisins	
geography of raisin production	292
packing raisins	292
classes of raisins	292
cooperative marketing of raisins	293
raisin packers	293
California Associated Raisin Company	294
“Sun-Maid” brand of raisins	294
direct sale by raisin growers association	294
cooperative company owns raisin	
packing plant	295
five-cent package of raisins, a confection	295
Federal trade commission investigation	
of raisin trade	295
export trade in raisins	296
Australia a competitor in the raisin	
market	297
Rayon	
advertising—	430
distribution of—	428
geography of—	429
Ready-cut houses sold by mail	358
Ready-to-wear purchases	641
Receivers of dairy products	217
Recent tendencies in textiles	415
Reconsignment abuse in coal trade	315
Redrying tobacco by associations	164
Refining	
—of petroleum	380
—of sugar	595
Refrigeration	
icing necessary for meat	584
“Regular” elevators	71
Regional associations grain producers	84
Regional packers	578
Research departments prepare copy for	
advertising industrial equipment	720
Resale price an issue in the tobacco	
jobbing trade	625
Retail	
advertising in—shoe stores	661
exclusive—outlets for shoes	658
farmers' companies—lumber	357
financing—furniture sales	474
Great Atlantic & Pacific Tea Company	519
—coal dealers	313
—dry-goods outlets	434
—furniture associations	476
—grocer a distributor of sugar	600
—grocer handles canned goods	527
—handling of bananas	305
—lumber yards	356
—meat shops	\$86, 588
—organization for automobiles	665
—outlets for farm machinery	687



Retail ( <i>continued</i> )					
—selling of motor trucks	678	Sales	—terms in flour market	572	
—shoe marketing	657	clearance—		661	
—trade in coffee	556, 559	hay—agencies terminal		105	
stock keeping for—shoe stores	662	method of—of corn		93	
—stores distributors of baking goods	539	Sales department			
wholesale and—margins for citrus fruits	273	company—for coal		311	
millinerteria a—outlet	464	Sales promotion			
Retailer		—industrial equipment	713, 714		
candy—	503	Sales organization			
coal—buys F.O.B. mine	313	—Ford Motor Company	673		
—distribution of aluminum products	635	Salesman's kit for selling industrial			
display of baking goods by—	541	equipment	710		
reducing—risks in the tobacco business	618	Salesmanship			
independent—in drug store trade	489	personal—important in millinery	464		
Retailers		Salesmen			
associations of lumber—	351	furniture—sell from catalogs	473		
fill-in orders from shoe—	658	"missionary"—in the soap trade	605		
"Grocerteria" in the West	518	the technical—in industrial equipment			
Retailing		trade	708		
automobile tire service stations	683	traveling—disappearing from millinery			
chain shoe stores	654	trade	463		
cooperative buying of hardware	485	service men in industrial equipment trade	711		
department stores outlets for millinery	463	Salmon			
drug stores carry many convenience items	498	grades of—			
—of fruit	233	selling agencies in the canned—trade	534		
PM's in shoe—	661	Sample	530		
Rice		clothing sold by—	640		
Federal grades for—	99	cotton sold on—	117		
Great Britain imports much—	100	tea sold by—	568		
international trade in—	100	—designs in fancy textiles	409		
Risk bearing in the aluminum market	632	Samples			
Risks		—in industrial equipment to supply trade	712		
jobber shifts textile—	422	shoe—	654		
trade—in glass market	502	Sampling			
Road		—cotton	122		
direct or—buyers of cotton	111	—of grain by inspectors	74		
Roasters		Sanitation in the baking industry	543		
coffee—	551, 554	Sao Paulo Institute	560		
Roosevelt Hay Growers Association	108	Saturation in automobile market	677		
Rubber		Scientific tests			
estate agents in raw rubber trade	390	use of—in selling equipment	720		
foreign and local raw rubber brokers	390	Scoop shoveler of grain	64		
Rubber Association of America fixes		Sears, Roebuck and Co. sell ready-cut houses	362		
trading rules	391	Season			
Colombo Rubber Traders Association		extension of marketing—for citrus fruits	272		
trading rules	391	advertising off—sales of flowers	511		
Rubber Trade Association of London	391	Seasonal			
contracts of sale, raw rubber	391	Bermuda onions peak shipment in			
terms of sale, raw rubber	392	summer	287		
prices of raw rubber	392	converters' business—	420		
British regulation of raw rubber exports	393	corn movement largest in the winter	94		
Stevenson plan rubber price regulation	393	—demand for hardware items	482		
British regulation of raw rubber exports	393	—demand for candy	504		
Rugs		—element in radio sales	698		
channels of distribution for rugs and		—factors in glass market	500		
carpets	465	farm implement business—	687		
seasonal trade in carpets and rugs	465	holiday demands for candy	508		
classes of carpets and rugs	466	—influence in baking industry	541		
oriental rugs	467	—wheat harvest	53		
oriental rugs not standardized	468	—movement of onions	287		
oriental rug importers	468	—movements of cattle	170		
advertising oriental rugs	468	—production of poultry	204		
demonstrations and lecturers on oriental		—production of coffee	549		
rugs	468	summer dullness in coal trade	317		
Russian		—textiles	410		
marketing—wheat	87	—trade in carpets and rugs	465		
Rye		—trade in cement	366		
—market stimulated by the war	99	Selling			
principal—markets	98	—live stock in central markets	184		
		—potatoes by wire	241		
		—agencies for lumber	346, 353		
		—agent for textiles	406		
S		Selling houses			
Sacked grain		knit goods—	414		
—in Northwest	60	textile—	406		
—in Russia	88	Service stations			
Sale		automobile tire—	683		
—of green coffee in transit	551, 554				
—range wool at sheds after shearing	132				



Service stores		competition in the soap industry	603
meat distributed through credit and		soap a "leader"	603
delivery or—	588	national advertising of soap	604
Sheep (see Live stock)		department stores sell soap	604
Sheep and lambs	174	direct sales of soap to retailer	605, 606
Sherman Anti-Trust Act		drug stores distribute toilet soap	605
—affected the tobacco industry	624	soap distribution unstandardized	605
Ward Food Products Corporation and		"missionary" salesmen in the soap trade	605
the—	545	direct distribution unsuccessful in soap	607
Shingles		industry	607
Washington red cedar—	345	credit in direct distribution of soap	607
Shipment		soaps usually sold as families of products	609
sale and—of grain	65	packaging of soap	609
Shippers		physical characteristics of soap	609
country—sales of hay	105	Soap distribution unstandardized	605
Shipping		Social control	
—eggs by express	197	see also Government control	
live stock—	175	Southern	
live stock—association	177	little—wool	131
see also Transportation		Speculation	
Shoes		—coffee market	551
geography of shoe industry	651	—in copper	332
large scale production in shoes	651	Speculative	
channels of distribution of shoes	652	wool trade is—	136
direct sale of shoes	652	"Spot" market in coffee	553
jobbers in shoe trade	652	Solicitors	
styles and shoe prices	652	grain—	69
multiple styles of shoes	652	Sorting feeder cattle	190
shoe jobbers	654	Southeastern apples	250
factory owned jobbing outlets for shoes	654	Southern early or "new" potatoes	239
chain shoe stores	654	South Water Market in Chicago moved	236
department stores important in shoe trade	654	Specialization	
shoe samples	654	—in shoe manufacture	656
advertising shoes	655, 656	—in steel production	320
exporting shoes	655	Speculation in steel	326
specialization in shoe manufacture	656	Speculators in pig iron market	323
retail shoe marketing	657	Spot cotton, methods of selling	117
fill-in orders from shoe retailers	658	Stable	
exclusive retail outlets for shoes	658	wheat a—commodity	53
cash discounts in shoe trade	660	Standard	
delivery of shoes	660	—Oil Company	382
selling slow-moving shoe stock	660	—drugs standardized by Squibb	487
PM's in shoe retailing	661	—bunch of bananas	298
clearance sales	661	Standards	
cash and charge sales of shoes	661	"tolerances" on bread—	544
advertising in retail shoe stores	661	Federal—suggested for underwear sizes	456
stock keeping for retail stores	661	moisture content of bread	544
style in the shoe trade	662	Standardization	
Shopping		—of aluminum	630
hosiery a shopping line	646	—of rubber tires by trade association	
Show		action	686
National Radio Show	694	—of cement	366, 368
Shows		—of oranges and lemons	271
automobile shows	672	lack of—in clothing	433
Side lines		—problem in dry goods	448
tobacco and its products universal—	612	—of sizes for knit wear	456
Silk		—of flour containers needed	575
transportation of raw silk	423	—of wheat	72
grades of raw silk	424	types of hosiery	643
silk exchange	424	—and stocks in industrial equipment	706
"to-arrive" purchases of silk	425	—of machine parts	716
direct buying of raw silk	426	—of potatoes	245
geography of silk production	426	—in radio equipment	693
silk markets of the world	427	government specifications for tires	686
conditioning silk	427	weights of bread	543
grading silk	428	individuality in furniture	471
distribution of rayon	428	grading of sugar	595
geography of rayon	429	inspectors of tea	566, 567
tariff on rayon	429	see also Classes and Grades	
advertising rayon	430	Standardized	
cooperative advertising of rayon	430	millinery not—	464
Rayon Knitted Fabric Association	431	oriental rugs not—	468
Slogan, "Say it with flowers"	511	State cotton associations	120
Slow-moving		Steel	
selling—shoe stock	660	contracts for steel	324
—stale bread	544	transportation of steel	325
Soap		transportation of steel by water	325
consumer demand for soap stable	603	speculation in steel	326
		warehousing of steel	327

Steel ( <i>continued</i> )			"Sun-Maid," brand of raisins	294
inspection of iron and steel	327		Sweetcorn in the canning industry	532
grading of iron and steel	327			
chemical analysis of steel	328			
trade information on steel	328			
price of iron and steel	329		T	
competition in iron and steel	329		Tank cars for petroleum	380
"Pittsburgh-plus" price for steel	329		Tankers	
advertising sheet steel	331		oil—	379
<i>see also</i> Iron and Steel			Tariff	
Stevenson plan rubber price regulation	393		—on dairy products	227
Stocker and feeder cattle	170		—on rayon	429
Stock keeping for retail shoe stores	661		—classification of wools	139
			—and the price of wool	145
Stocks			Tariffs influence sugar market	600
retailer—of tobacco controlled by			Tailor trade in clothing	640
national advertising	616		Tailor trimming trade	641
—of drug wholesalers	491		Tea	
full—and the industrial equipment			geography of tea production	563
jobber	704		geography of tea consumption	563, 564, 566
standardization and—in industrial			cooperation in tea production and	
equipment	706		marketing	565
open floor—of millinery	463		export duty on tea	565
manufacturing textiles for stock	406		tea guilds trade associations	566
Stockyards service	181		central markets in the tea industry	566, 567
Storage			inspectors of tea	566, 567
—of boxed apples at shipping point	259		London Tea Market	567
banana—rooms	305		the broker in the tea trade	567
—of coffee	548		wholesale buyers in the tea trade	567
coffee—	549		catalog for tea	567
—of copper	336, 337		tea sold at auction	568, 569, 570
financing—of butter and cheese	223		tea sold by sample	568
local—of potatoes	241		advertising tea	565, 566
farm—of potatoes	246		grades of tea	569
<i>see also</i> Cold storage; Warehousing			brands of tea	565, 566
Stove manufacturers sell direct	484		packaging tea	565, 566, 567
Style			Telegraph in the sale of flowers	514
—in automobiles	670		Terminal	
—and direct marketing	432		—poultry dealers	205
—in clothing	432, 439, 440, 441		hay sales agencies—	105
millinery and national—magazines	462		Terminal elevators	
—and the millinery jobber	462		ownership—	70
Paris couturiers and—	443		leasing—	70
—in the shoe trade	662		mixing grain in—	71
—trend away from white goods	416		Terminal markets	
—fluctuations and hand to mouth buying	418		—for grain sorghums	100
—"openings"	443		selling hay on—	106
—and distribution costs	450		—for flax-seed	102
textile manufacturers study—trends	460		sales of boxed apples in city markets	260
—factors in hosiery	649		Terminal warehouses	
Style departments of manufacturing houses	460		growers consign wool to—	128
Style risk in men's clothing	638		Terms of sale	
Styles and shoe prices	652		—raw rubber	392
Sugar			—for automobile tires	685
geography of sugar production	594		Territorial marketing in the canned goods	
refining of sugar	595		trade	529
import duty on sugar	595		Texas Trail	
grading of sugar	595		the old—in live stock transportation	167
packaging sugar	596		Texas Farm Bureau union growers' exchange	285
freight charges a significant item in			Textiles	
sugar distribution	597		distribution of textiles	405
brokerage charges in sugar	597		selling staple textiles direct	405
price in the sugar market	598		textile auctions	406
wholesaler or jobber protected against			textile selling houses	406
price declines in sugar market	598		selling agent for textiles	406
direct marketing of sugar	598, 599		textile commission house	406
grading sugar products	599		manufacturing textiles for stock	406
brokerage in the sugar industry	599		financing southern textiles	407
wholesale grocery jobbers distributors			commissions on southern textiles	407
of sugar	599		consignment of textiles	408
wholesale jobbers bankers of the sugar			selling houses handle fancy textiles	409
supply	600		sample designs in fancy textiles	409
retail grocer a distributor of sugar	600		local preferences for colors in textiles	410
tariffs influence sugar market	600		seasonal textiles	410
the New York Sugar Exchange	601		cancellation of orders for textiles	410
futures trading in sugar	601		cotton goods brokers	412
government regulations of Cuban			converters	412
sugar crop	602		knit goods sold direct	414
"Sunkist," trade-mark for citrus fruit	270		knit goods selling house	414

- Textiles (*continued*)
- New York chief market for cotton goods 414
  - advertising textiles 414, 415
  - brands of textiles 415
  - recent tendencies in textiles 415
  - style trend away from white goods 416
  - small orders for textiles 417
  - hand-to-mouth buying of textiles 417
  - department store purchase textiles direct and indirect 417
  - style fluctuations and hand-to-mouth buying 418
  - converters' business seasonal delivery of textiles 421
  - jobber shifts textile risks 422
- To-arrive
- cotton 117
  - grain— 69
  - purchases of silk 425
- Tobacco
- loose-leaf tobacco auctions 155
  - packed tobacco at public auctions 157
  - closed-bid tobacco auction 157
  - farm selling of tobacco 157
  - cooperative marketing of tobacco 159
  - tobacco cooperative sales agencies 159
  - pooling tobacco 160
  - financing cooperative tobacco pools 160
  - Tri-state Tobacco Growers' Association 161
  - Burley Tobacco Growers' Association 161
  - Dark Tobacco Association 162
  - redrying tobacco by associations 164
  - classes and types of tobacco 164
- Tobacco Products
- tobacco products perishable 611
  - small unit sales of tobacco products 611
  - tobacco graded by packer 611
  - jobbers handle manufactured tobacco products 612
  - tobacco and its products universal side lines 612
  - geography of the manufacture of smoking tobacco 612
  - geography of snuff manufacture 612
  - cigarette manufacture a large factory process 612
  - importing Turkish tobacco 612
  - concentration of manufacture of Turkish cigarettes 612
  - foreign tobacco trade 613
  - combination in the tobacco industry 613
  - legal aspects of tobacco combinations 614
  - direct distribution to retailers not feasible in tobacco trade 615
  - the jobber in the tobacco trade 615
  - combination of products handled by tobacco jobbers 615
  - jobber finances the retail merchant's tobacco products 616
  - the sub-jobber in the tobacco trade 616
  - credit policies in the tobacco market 616
  - branding of tobacco products 616
  - advertising of tobacco products 616
  - retailer stocks of tobacco controlled by national advertising 616
  - chain stores controlled by manufacturer 617
  - branch offices really advertising headquarters in the tobacco business 617
  - price policies in the tobacco trade 618
  - reducing retailer risks in the tobacco business 618
  - jobber protection against drop in tobacco products prices 618
  - survey of the market for tobacco products 619
  - advertising of tobacco products 620
  - women constitute an important part of cigarette smoking public 620
  - advertising competition in the tobacco products field 620
  - foreign demand for American cigarette combination in the tobacco industry 621
  - American Tobacco Company 614, 617, 618, 622
  - price-cutting war in the tobacco trade 623
  - Sherman Anti-Trust Act affected the tobacco industry 624
  - price "fixing" for tobacco products 625
  - resale price an issue in the tobacco jobbing trade 625
  - Toilet goods 488
  - department stores important in—trade 488
  - Tomatoes in the canning industry 532
  - Track buyers of grain 64
  - Trade associations
    - standardization of rubber tires by—action 686
    - in flour marketing 573
    - tea guilds— 566
    - radio— 692
  - see also* Associations
  - Trade discounts for book paper 402
  - Trade-mark
    - "Wear-Ever" aluminum— 635
    - "Sunkist"—for citrus fruit 270
  - Trade-marks
    - in the coffee industry 554
    - see also* Brands
  - Trade-marked lines in men's clothing 639
  - Traders
    - in grain pits 77
    - in live stock 184
  - Trade information on steel 328
  - Trade-ins
    - in replacements of industrial equipment 713
    - in automobile market 671
  - Trade organizations
    - copper 334
  - Trade promotion
    - five-cent packages of raisins, a confection 295
  - Transportation
    - water—of boxed apples 258
    - boxed apples 257
    - rail—of bananas 303
    - care of bananas during rail— 303
    - of wholesale bakery goods 539
    - of green coffee 550
    - of copper 336
    - dairy products 213
    - highway—dairy products 214
    - of eggs 192
    - costs grain 81
    - effect on location of wood working industries 343
    - of lumber 355
    - of onions 286, 287
    - pipe line—of petroleum 377
    - of raw silk 423
    - of steel 325
    - of steel by water 325
    - of poultry 203
    - of potatoes 242
    - pipe line—in Wyoming 389
    - local—of bananas 300
    - bulk shipment of apples 252
    - typical carload of boxed apples 260
    - truck distribution of bread 541
    - export shipments of cotton 125
    - shipping eggs by freight 197
    - "car peddler" of fruit 236
    - distribution of grain cars to local elevators 66
    - plugged grain cars 66
    - shipping documents grain 66
    - merchandising and shipping from terminal elevators 71
    - hardware shipped long distances 482
    - railroad responsibility for live stock 179
    - terminal railroad facilities for live stock 179
    - unloading and yarding live stock 180



Transportation ( <i>continued</i> )		Webb Export Act	338
shipping live stock out of yards	180	<b>Weighing</b>	
minimum live stock freight rates	180	country—of grain	65
car routes in the meat trade	580, 582, 583	—grain by inspectors	74
oil tankers	379	—potatoes	244
tank cars for petroleum	380	Western Canada, cooperative grain	
express shipments poultry	210	marketing	85
freight shipments poultry	210	<b>Wheat</b>	
shipping dressed poultry	210	classes of—	72
freight charges, a significant item in		—see also Grain	
sugar distribution	597	<b>Wholesale</b>	
—see also Shipments and Shipping		—bakers	539
<b>Transportation by water</b>		—grocer	516
loading the banana cargo	300	—grocers handle canned goods	525, 527
banana steamers	301, 302	—grocers in coffee trade	551, 554
banana ports	302	—grocers distributors of flour	573
onion shipments from Galveston by water	287	—and retail margins for citrus fruits	273
<b>Traveling buyers</b>		—hardware house and industrial	
cash traveling potato buyers	241	equipment	708
Tri-State Tobacco Growers Association	161	—lumber yards	352
Truck distribution of bread	541	—markets for lumber	347
<b>Trusts</b>		the—meat dealer	580, 581
cement—	368	—onion markets	288
cement—, England	370	—buyers in the tea trade	567
see also Combinations		<b>Wholesalers</b>	
<b>Trusts and combinations</b>		copper—	335
"Gary dinners"	320, 321	—of woollens and tailors trimmings	641
Standard Oil Company dissolved	382	Winchester Simmons Consolidation	484
competition in iron and steel	329	Wisconsin Cranberry Sales Company	280
<b>Truth in furniture</b>	477	Women constitute an important part of	
<b>Turnover</b>		cigarette smoking public	620
—of aluminum utensils	636	Women's price goods	435
quick—in some textiles	451	<b>Wool</b>	
jobber and retail—	454	channels for collection of wool	128
—of grocery stores	523	growers consign wool to terminal	
—of retail meat dealers	587	warehouses	128
		cooperative wool pools	129
<b>U</b>		contracting sale of wool clip before	
<b>Unit sales</b>		shearing	129
small unit sales of tobacco products	611	wool selling in range states	129
United Fruit Company dominant in		public market for wools in United	
banana trade	306	States lacking	130
United States Federal Grades for grain		characteristics of eastern wools	130
used for export	87	little southern wool	131
United States Grain Corporation	82	methods of sale of wool on the range	131
United States Grain Growers, Inc.	83	range sale of wool on contract	131
United States Steel Corporation	320	sale range wool at sheds after shearing	132
		sale range wool by consignment	132
		associative sales range wool	133
		marketing fleece wools	134
		wool pools	135
<b>V</b>		wool trade is speculative	136
<b>Valorization of coffee</b>	559	wool mill purchases	137
		financing woollen mills	137
<b>W</b>		marketing foreign wools	138
<b>Warehouses</b>		Australian wool sales	138
geography of coffee—		Australian wool auctions	138
public coffee—	550	London wool auctions	138
cotton—under Federal Warehouse Act	121	tariff classification of wools	139
—see also Storage		Boston second largest wool market	140
<b>Warehousing</b>		the wool "buyer"	141
—copper	336, 337	functions of eastern wool merchant	142
—cotton at New Orleans	120	New York Wool Exchange	142
—of steel	327	grades of wool	143
<b>Water transportation</b>		"blood" terms used in wool grading	144
—of lumber	348	tariff and the price of wool	145
—of oil	379	World-wide market for iron and steel	322
—see also Transportation			















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